13 MAY 1957

Madras Information

Published every month by the Director of Information and Publicity
Fort St. George

Vol. XI, No. 5 "WE SEEK TO SERVE AND NOT TO COMPETE" May 1957

CONTENTS:

		PAGE
1.	Milk Co-operatives in the Second Five-Year Plan—Sri A. Palaniappa Mudaliar, M.A., I.A.S., Registrar of Co-operative Societies.	2
2.	Where Toned Milk is produced	4
3.	The Grand Anicut—Sri U. Ananda Rao, Chief Engineer for Irrigation	6
4.	The enlightened public has a role to play in the Fight against Beggary—Sri J. M. Lobo Prabhu, I.C.S.	8
5.	Tamil Fiction To-day—Sri T. P. Meenakshisundaram, Professor of Tamil, Presidency College, Madras.	9
6.	First Five-Year Plan's inspiring Record of Achievements	10
7.	Bee-keeping in the National Economy—Sri H. Viswanathan, Bee-keeping Development Officer, Madras.	13
8.	Veterinary Education and Research in the Madras State—Sri Bertie A. D'Souza, Principal, Madras Veterinary College.	18
9.	Kodai—"The Jewel of Hill Stations"	21
10.	To raise the Tempo of Community Development Schemes	24
11.	The Madras Legislative Assembly	28
12.	Balanced Diet for the Family—Dr. (Smt.) Rajammal P. Devadas, Chief Home Economist, Directorate of Extension and Training, Ministry of Agriculture.	31

On the cover page : A picturesque view of Kodaikanal Lake and its surroundings. This Lake perhaps is responsible for Kodai to earn the reputation that it is one of the three best places in the world.

Fourth cover page : The historic temple of Lord Ranganatha at Gingee in South Arcot District.

13 MAY 1957

Milk Co-operatives in the Second Five-Year Plan

By SRI A. PALANIAPPA MUDALIAR, M.A., I.A.S.,
Registrar of Co-operative Societies.

Milk is a protective food of great nutritive value, particularly for mothers and children. Protein malnutrition is widespread among children who get no milk. Such children suffer and die in large numbers for lack of protein. The per capita consumption of milk in India is much below the quantity consumed in many other parts of the world; the per capita consumption is only 5½ oz. in India as against 30 to 40 oz. in countries advanced in dairying. Within our own country, States like the East Punjab consume a much higher quantity of milk, than our own State where the per capita consumption is only about 2·4 oz. Nutrition experts have suggested the need for at least 8 oz. of milk per day in the average Indian diet. More milk has therefore to be consumed by our countrymen and if they should do so, we should produce more milk and make it available to our people at reasonable prices. The question is thus one of national importance.

More Milk Production.

The problem of increasing the consumption of milk is two fold viz., augment production and lowering the price to bring it within the income levels of the poorer sections of the population. Though this country maintains a huge cattle population, the production of milk is comparatively very low. The main problem confronting the dairy industry in this country is the low milk yielding capacity of our cattle and the shortage of cattle feed and fodder. Government have been taking steps to improve our breeds of cattle by establishing cattle farms, supplying approved types of breeding bulls and starting artificial insemination centres. The key village scheme recently introduced is also designed to bring about improvement in the cattle wealth. Government are also bestowing increased attention on the better feeding of cattle by encouraging cultivation of fodder grass, supply of concentrates, etc.

The importance of Dairying as an agro-industry in India is twofold. It provides a subsidiary occupation to the agriculturists who form the majority of the population living in rural areas. Secondly, it seeks to solve the problem of providing milk, an indispensible article of diet, to the rural and urban population. Any plan for National Development in India has therefore to give a prominent place for Dairy Development. The Second Five-Year Plan which aims at creating a socialist pattern of society and increasing the standard of living, particularly of the rural folk in India, therefore, includes schemes for Dairy Development.

Development Schemes in the Second Plan.—The Planning Commission has recognized the importance of the development of Dairying and Animal Husbandry and has included several schemes relating to milk supply and improvement of cattle wealth in the Second Five-Year Plan. In the co-operative Sector the following are the schemes proposed and they are expected to cost about Rs. 35.95 lakhs :—

(1) Development of milk production in urban areas.

(2) Installation of pasteurisation plants by six milk co-operatives.

(3) Provision of equipment to the Madras Co-operative Milk Supply Union for the hygienic handling of milk distributed in the City.

(4) Establishment of four co-operative salvage farms for dry cattle.

(5) Establishment of 11 co-operative societies for cattle breeding.

The first of these schemes is meant to increase the daily average production of milk by co-operatives from the existing level 39,200 Madras measures to 59,780 Madras measures at the end of the plan period by organising 138 new milk supply societies and providing State loans to the extent of Rs. 49 lakhs to members of co-operatives for purchase of milch animals. During the first year, 23 milk supply societies were formed against the target of 18 societies to be organized, loans were issued to the full extent of the targetted amount of Rs. 7 lakhs and the present daily average production of 43,177 Madras measures has exceeded the target of 43,000 Madras measures fixed for the year. During the current year 1957–58, 20 societies will be formed, loans to the extent of Rs. 9 lakhs will be issued and the daily production increased further to 48,000 Madras measures.

Under the second scheme, a pasteurisation plant will be put up by each of the six milk co-operatives at Kodaikanal, Madurai, Coimbatore, Madras, Trichy and Ootacamund. The total estimated cost of this scheme is Rs. 8.31 lakhs. The first year's programme has been implementated by the installation of a plant by the Kodaikanal Milk Supply Union at a cost of Rs. 32,000. The Minister for

Agriculture and Co-operation switched on the machinery early this month. The public of kodaikanal and the large number of visitors who go there for the season will now get pure pasteurised milk from the milk union. During the second year, the Madurai and Coimbatore Milk Supply Unions will each instal a pasteurisation plant.

The third scheme envisages the improvement of the hygiene of production and handling of milk by the Madras Co-operative Milk Supply Union in pursuance of the recommendation of the Dr. A. L. Mudaliar's Committee constituted by the Government of Madras. The scheme involves a capital expenditure of Rs. 5 lakhs and provides for the construction of 75 cattle sheds, the insulation of 10 milk vans, the installation of a can washing machinery, the erection of a bottle washing and filling machinery and the provision of 10 drop-in milk coolers. The scheme is awaiting the sanction of Government. Pending the sanction of the scheme, the Milk Supply Union has recently installed a milk cooler in Mylapore and this was inaugurated by the Finance Minister to the Government of India.

Under the fourth scheme, four salvage farms one in each of the districts of Tiruchirappalli, Coimbatore, Tirunelveli and Ramanathapuram are to be established. One farm has been established during 1956–57 at Thuvakudi in the Tiruchirappalli district in accordance with the target fixed under the scheme. This farm will provide facilities for the salvage of 100 cattle at a time. One more farm with a larger capacity will be established during the current year at Abishekapatti in the Tirunelveli district.

As regards the last scheme 11 cattle breeding societies are to be established during the plan period to up-grade the cattle by natural services. Both the cattle breeding societies to be formed during the year 1956–57 according to the targets fixed in this regard have been established one at Semmanangur in the South Arcot district and another at Appanaickenpalayam in the Coimbatore district. Each of these societies has been provided with three breeding bulls at a total cost of Rs. 6,000 besides a stock of medicines, etc., at a cost of Rs. 600. They have also been sanctioned a Senior Inspector each for supervision purposes. Two more societies of this type will be formed in the current year in the Chingleput and North Arcot districts.

The implementation of these schemes will tend to improve the quality of our milch animals and increase the output of pure milk for supply to the public. Under the various programmes of development undertaken in the Second Five-Year Plan opportunities for employment will increase and the purchasing power of the people will also rise. The demand for milk will therefore go up. The efforts at producing more milk will have therefore to be continued if production should keep pace with the demand. Not only should the production be increased, but every endeavour should also be made to keep down the price level within the reach of as large a section of the public as possible. The co-operative is the best suited machinery to achieve this objective in a very large measure, because in its endeavour to augment milk production, it encourages the small farmers in rural parts to take to diarying as a subsidiary occupation without much cost. Agriculture is regarded as a deficit economy and unless it is accompanied by subsidiary industries those engaged in it cannot pay their way. In the view of economists, our country needs mixed forming and the development of dairying as a subsidiary occupation among agriculturist answers this need to a large extent. The celebration of the more milk day annually and the other measures taken to popularise the consumption of more milk will apart from tending to increase consumption of this necessary article of food, better the economic condition of the agriculturists and thus bring about improvement in the rural economy.

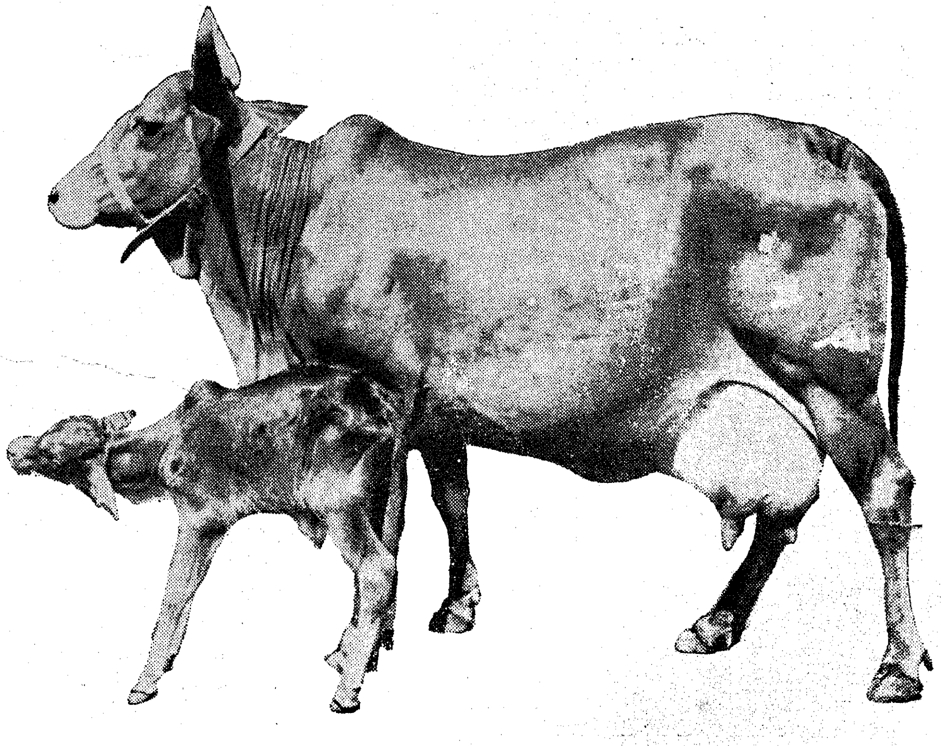
* * * *

Sale of Khadi

The total sales of Khadi produced by the Government of Madras through various agencies during February 1957 amounted to Rs. 2,87,958.

The sale was made through the City and mufassal depots, Government Central Godown and Block Development officers.

The Government have sanctioned the establishment of Wood Seasoning Plants at Maduari and Pollachi at an estimated cost of Rs. 1,30,000 (non-recurring) and Rs. 17,000 (recurring). The Government of India have sanctioned a loan of Rs. 97,500 representing 75 per cent of the non-recurring expenditure estimated to be incurred during 1956–57.

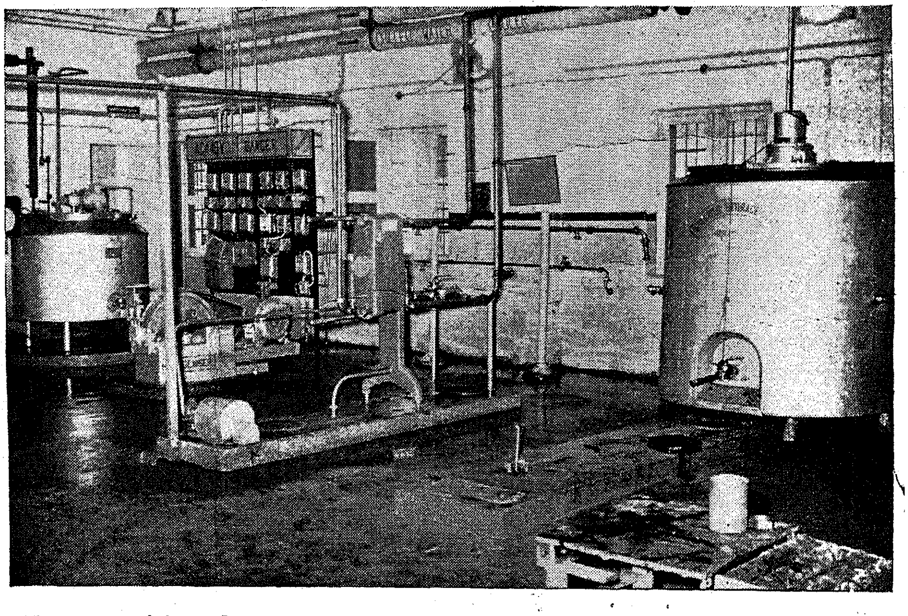


Where Toned Milk is Produced

What is toned milk? Why it is produced? How is it different from natural milk? These questions arise in one's mind as he goes round the Toned Milk Factory run by the Madras Government in the City.

The factory is situated in specious grounds and the visitor will have an opportunity of acquainting himself with the various processes in the production of toned milk. There are the Laboratory where milk purchased from outside is tested, the pasteurization plant, the refrigeration plant and the bottling apparatus and a number of instructive sight for the visitor. Very many people think that toned milk is inferior in quality to natural milk and its nutrient properties are less than those of its natural counterpart. These assumptions as will be shown presently are not based on facts. Briefly stated, toned milk is prepared from buffalo's milk by the addition of skimmed milk in order to reduce the fat percentage to that of a cow's milk. Now in a tropical country like ours, what is wanted is not so much fat as proteins. And proteins is supplied by toned milk. It is equivalent in nutrient and biological value to cow's milk. Apart from these, toned milk is also safe from the bacteriological point of view on account of its freedom from the risk of infectious diseases because the milk is manufactured under carefully controlled conditions.

Now about the rationale of toned milk production. It is a common place that milk is an indispensable article of diet and a minimum consumption of 16 oz. or at least 8 oz. per day is necessary for each individual to keep his normal health. The present consumption figure in the modern city is round about 2 oz. One of the reasons for the poor state of public health is the low consumption of milk. This is partly due to poor production as well as the prohibitive cost of milk, which makes it difficult for the average man to purchase it regularly. The main difficulty of low production can be overcome by improving the quality of our cattle and thus increasing production. But this is a slow process. And the problem cannot wait. Statistics may be quoted here to elucidate the gravity of the



The pasteurising plant where the ingredients are subjected to 145° *F before it is suddenly cooled by mechanical refrigeration to* 40° *F.*

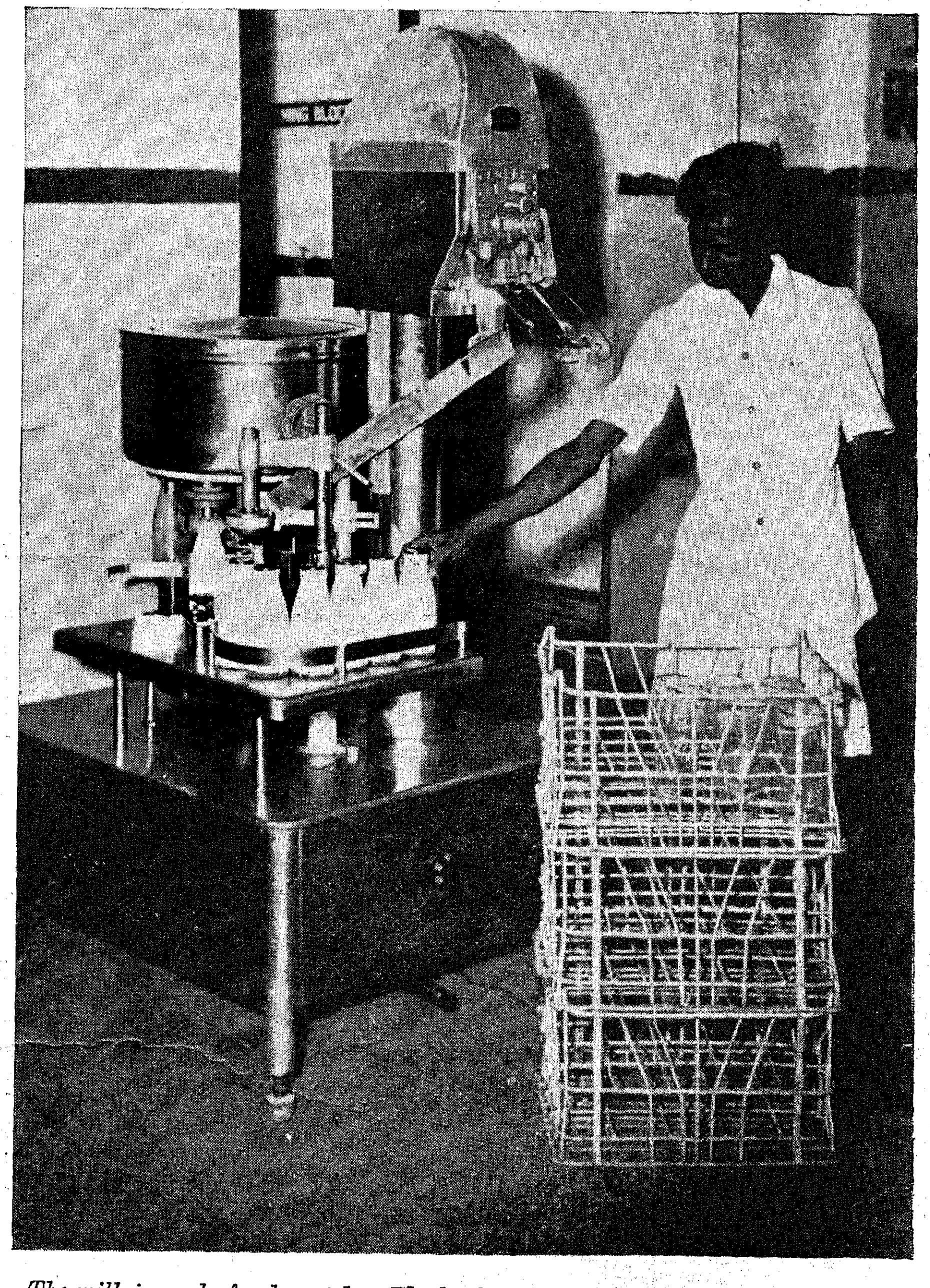
matter. The present total consumption of fluid milk in the Madras City is about 230,000 Madras measures for a population of 16·5 lakhs. If the entire population is to get at least 8 oz. per head, the quantity of milk required will be round about 8·25 lakhs lb. The gap is wide indeed and special measures are called for. It is here the toned milk comes in. Of its ingredients, mention has been made already. The process of manufacture is done through modern machinery. The whole process is mechanised and the milk is untouched by hand from beginning to end. At the same time it is subjected to a process of pasteurization. This process eliminates all germs from the milk without at the same time affecting the vitamins.

In the early stages, the people had some prejudices against using toned milk, but since then, experience has disproved these misgivings and toned milk is becoming increasingly popular. On an average 6,000 lb. of milk is produced daily and distributed in an insulated van to the people through depots situated in the various parts of the City. Toned milk is exclusively used by the land, air and naval forces for the last more than ten years. It is very popular in the city of Bombay. All State hospitals in the City are using toned milk at present. The common man can have it for a very economic price.

A few details may be given in conclusion about the process of manufacturing toned milk. It is, as has been indicated, prepared from buffalo's milk by the addition of proper proportion of skimmed milk or powder and water, and then brought to the standard quality of fresh cow's milk in total solids. The process of manufacture consists in the mixing of ingredients in a pastewrizing vat, where the temperature is raised to 145° F, retaining at that temperature for half an hour and then suddenly cooling it by mechanical refrigeration to 40° F. Milk is thus rendered safe for human consumption being rid of all harmful and disease producing germs. Milk is then immediately filled in temper-proof bottles and sent out in an insulated van. The use of insulated van is particularly significant because with its help, it is possible to deliver the milk to the consumer at a temperature very near 40° F, so that the consumer gets milk in exactly the same condition as the milk leaves the factory.

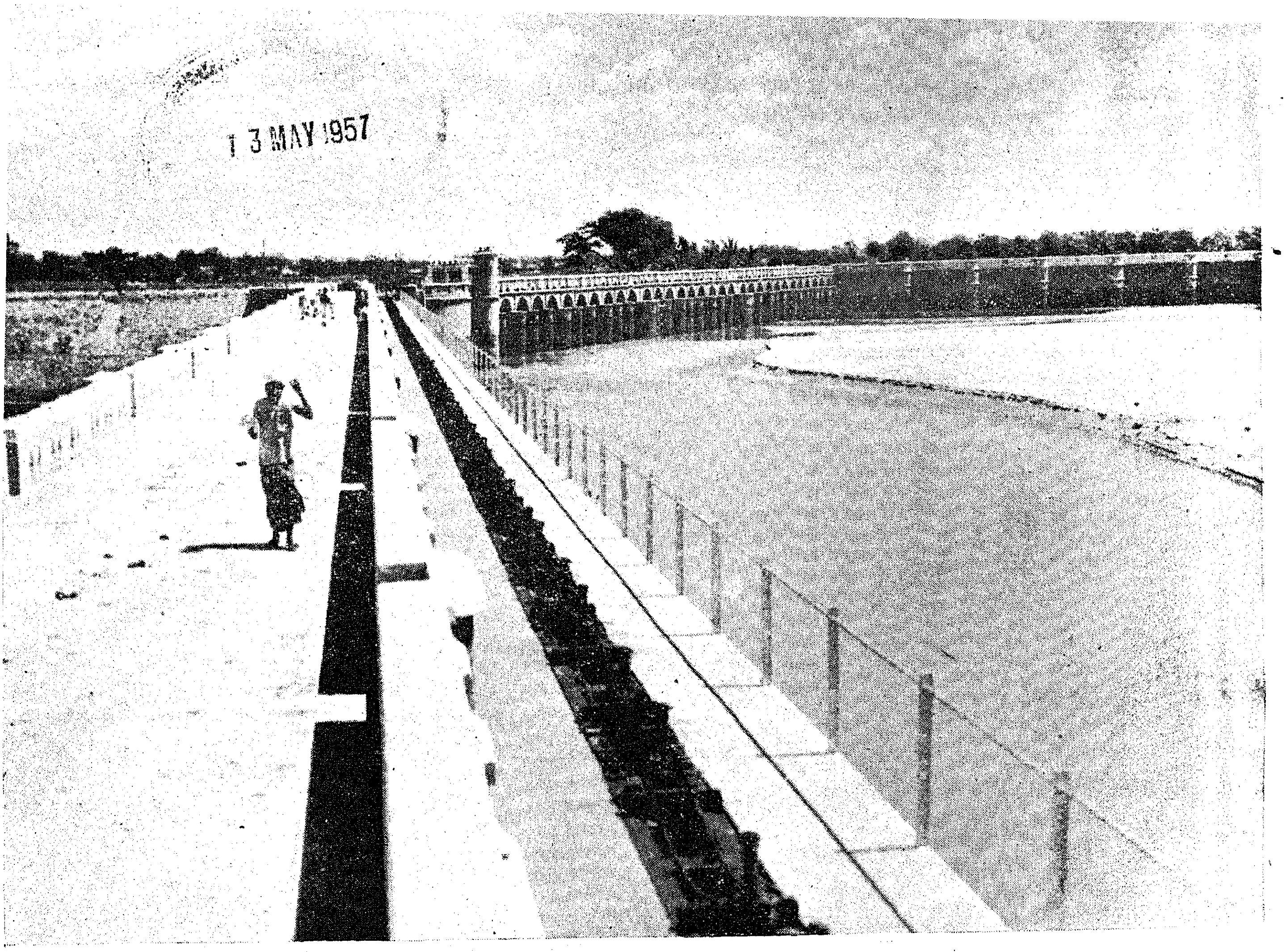
It is seen from these facts that the manufacture of toned milk is done under very rigorously controlled conditions and there is no possibility of any infectious germs getting into the milk. The importance of this fact will be better appreciated when it is remembered how in the case of natural milk, there is every possibility of infectious germs creeping into the milk in view of the insanitary conditions under which the milking is done. Both cows and buffaloes as everybody knows are milked in crowded streets and these animals are also housed in insanitary surroundings in close proximity to dwelling houses. It is also usual for milkmen to take these animals from house to house for milking and sometimes milk is carried into the City on head-loads, cycles, buses and trains. As a result of these, there is every possibility of milk becoming contaminated without the knowledge of either milkman or the consumer. Toned milk on the other hand guarantees immunity to all these possibilities and this is a very fundamental fact from the point of view of public health.

—THOMAS K. GEORGE.



The milk is ready for despatch. The bottles are filled and corked by machine.

13 MAY 1957



The Grand Anicut

By Sri U. ANANDA RAO, Chief Engineer for Irrigation.

The river Cauvery, the largest in South India, rises on the eastern slopes of the Western Ghats near Mercara. After running some miles in the former Coorg territory, it flows for a long distance over Mysore plateau. Near the junctions of Hemavathi and Lakshmanathirtha with Cauvery, Mysore Government have constructed the Krishnarajasagara Dam. After passing the Seringapatam island, the Cauvery reaches Sivasamudram where power is generated with the available fall of about 330 feet. About 30 miles below, the river enters the Madras State. In the limits of Salem and Coimbatore districts, the Mettur dam, the biggest at its time was constructed during 1925 to 1934 to safeguard the Cauvery irrigation and bring an area of 3 lakhs under the plough. Below Mettur Dam, the important tributaries are the Bhavani and Amaravathi. A reservoir on the former has been completed and the one on the latter is under construction.

Cauvery and Coleroon.

About 100 miles below Mettur Dam, the Cauvery which is called here as Aganda Cauvery, bifurcates into two. The one, on the left, goes by the name of Coleroon, serving as a flood carrier and the other on the right is called Cauvery, the main source of supply to the delta. Incidentally, an island is formed at the place, called Srirangam Island at the centre of which stands the famous temples of Srirangam and Tiruvanaikkaval. The Upper Anicut was constructed at this site across Coleroon by Sir Arthur Cotton in 1836. Prior to the construction of the Upper Anicut, it was usual for the Collector

Built by Raja Karikala Chola eighteen centuries ago to harness the waters of Cauvery for irrigation, the Grand Anicut stands as a fitting tribute to the master builders of Tamilnad.

This engineering marvel, apart from being a dam, is attracting a large number of tourists and Engineers. To make the place more impressive, it was electrified and the lights were switched on, by Sri Kanwar Sain, Chairman, Central Water and Power Commission, on April 30, 1957. Gardens and parks are being laid out with fountains and statues at suitable places.

13 MAY 1957

Historic Monument to the Engineering Skill of the South

of Tanjore to go with large gangs of labourers to the head of Srirangam Island and to construct a dam of grass, clay and sand to divert water into the Cauvery. At the same time, the accumulation of sand in the beds of minor canals and channels was cleared by manual labour and waterways cut in the bed of the main channels and rivers. It was seen with best of efforts, the bed of Cauvery was getting silted up and slowly rising, affecting supplies in the delta. No permanent effect could be produced by periodical silt clearances and so, in 1829, Major Sim, R.E., proposed outlets with undersluices from Cauvery into Coleroon as likely to prove an effective means, to prevent the accumulation of silt, in the upper reaches of the former. Four sets of undersluices were accordingly constructed at various places along the course of the Cauvery. In addition to the above, the "150 yards calingulah" was built in 1834 at a short distance above the 4th set of Cauvery sluices and a new six vents surplus was also built subsequently at Perumal Kovil. The Upper Anicut was converted into a regulator later and dam across Cauvery was built in 1845 to control the flow in Cauvery.

The dimensions of the Dam.

The Grand Anicut is about 16 miles lower down the Upper Anicut. The Cauvery and Coleroon are linked here by Ullar and thus the island of Srirangam is formed between Upper and Grand Anicuts. The anicut here owes its origin to the Raja Karikala Chola and dates back to the second century A.D. The work is of rough stone in clay, built in a serpentine form, 1080 feet long, 40 to 60 feet wide and 15 feet to 18 feet deep stretching across Ullar, the outlet into Coleroon. Its main function was to retain the supply in the Cauvery and pass the surplus into Coleroon. A portion of the crest was in ogee shape while the rest was with steps. It is on record that thousands of Ceylonese labourers were employed for the work, after the conquest of Ceylon by Cholas. This was the first step in the taming of the Cauvery and bringing in irrigation facilities to a large extent in Tanjore delta. In addition to the construction of the anicut, the Chola rulers seem to have constructed flood embankments to the Cauvery and dug a number of channels and canals from the river, thus laying a firm foundation for the pattern of irrigation that is obtaining now. Even though there was a steady progress under irrigation in this area, history does not record any further spectacular work. On the other hand, the whole system suffered deterioration owing to quarrels and intercene wars amongst the rulers. When the British Government took over Tanjore from the Mahrattas in 1800, the irrigation works were in a badly neglected condition and the supplies received in the Cauvery were found totally inadequate and sporadic. The Coleroon was scouring deeper and the Cauvery silting higher. It was therefore their first responsibility to look into the problems of the delta and put it into proper order. In 1804, Captain Coldwell repaired the Grand Anicut and provided dam stones on the crest and at the same time raised the river embankments above the Grand Anicut, thus forcing more water into Cauvery. During succeeding years, the embankments of various rivers and channels were repaired and extended.

In 1830, the ten scoring sluices, 3 feet wide and 4 feet high with the sills at 179·6 were built. The crest of of the dam was a little over 9 feet high above bed. Dam stones were constructed on the top of the projecting $2\frac{1}{4}$ feet above the crest. About 1840, a bridge was built over it using the existing work as foundation. By the construction of the bridge piers and dam stones, the effective length of the dam was reduced to 735 feet. In 1886, the dam stones were removed and automatic falling shutters 2 feet 10 inches (2′–10″) high were fitted on the crest. Thirteen years later, i.e. 1899 the falling shutters were removed and lift shutters 5 feet high and 32 feet span were installed in all the 30 arches. In 1909, three of these arches in the scouring sluice portion were washed away and subsequently restored omitting the scouring sluices. New scouring sluices, 5 vents of $20' \times 10'$ provided with radial shutters were built at the right end of the anicut.

To protect the Grand Anicut foundations from scour, a bed regulator was constructed for a length of 1,100 feet from the nose between the anicut and the scouring sluices on the upstream side with the object of deflecting the low water course away from the anicut towards the Vennar Regulator and thence to the scouring sluices.

As an outcome of the record flood of 1924, which was calculated to be of the order of 475,000 cusecs at the Upper Anicut, a road dam or byewash was constructed in the low padugai about a mile upstream of the Grand Anicut on the left bank of the Cauvery. In the event of any extraordinary flood, this byewash would surplus about 98,600 cusecs into the Coleroon, ensuring the safety of the works at the Grand Anicut to a considerable extent.

The Grand Anicut.

The Grand Anicut or Kall Anai, as called locally, is a name loosely applied to a group of works which comprise (1) Grand Anicut proper, a dam or weir with lifting gates constructed on the left bank of the Cauvery, (2) a group of scouring sluices, (3) the regulators at the heads of the Cauvery and Vennar, the two main canals into which the Cauvery divides itself to irrigate the old delta and (4) the head sluice of the Grand Anicut canal constructed in the early thirties of this century under the Cauvery-Mettur Project.

The Cauvery and Vennar Regulators.

About the year 1886, the imposing regulators of Cauvery and Vennar were constructed immediately downstream of and almost at right angles to the Grand Anicut for distributing the available flow between the Cauvery and the Vennar and also for excluding floods from them. Since 1910, various improvements were carried out to the various structures in the Grand Anicut. The construction or breast walls in the Cauvery and Vennar regulators made it possible to close the regulators entirely and exclude floods from the old delta.

The Grand Anicut Canal Head Sluice.

The Grand Anicut Canal for supply of Cauvery-Mettur Project water to the new delta takes off from the Grand Anicut at its right end. The old Vennar upland drainage course which formerly emptied into the Vennar

(*Continued on page* 30)

In the Fight Against Beggary

By Sri J. M. LOBO PRABHU, I.C.S.

It is necessary to distinguish between destitution and beggary. The first is the cause and the second is sometimes the result. There has always been destitution even as Christ said "the poor you will always have". Beggary is a feature of communities deficient not only in economics but also in social responsibilities. It is vanishing in progressive countries, and even in India, certain communities like the Sikhs and Parsees ban it absolutely.

The causes of destitution in India are various. In the first place, the average income per head is so low that a large section of the population is destitute in the sense, it lacks the means for the proper development of mind and body. We are however accustomed to regard destitution as lack of the minimum requirements of food and shelter. Starvation is of various degrees of quantity and quality. Only very few die suddenly from it, but some die gradually of malnutrition or under-nutrition. In respect of shelter apart from pavement dwellers and others who live in the open, many have houses which they only use against the inclemencies of the weather, and for cooking or storage. The effect of such conditions on their helath is indubitable, even though they are not regarded as destitutes. Under such conditions, the margin of actual destitution is considerable and constant. To some extent the joint family system masks and mitigates the worst cases. But for it, the distress could be more obvious, even politically important.

The second cause of destitution is physical incapacity, either actual disease or infirmity. The census reveals though not fully the large proportions of those suffering from disabling diseases. Medical aid which is growing may reduce the pain of these diseases but not the disabling effects. Infirmity is not generally a result of age, as the poor rarely live long. It is generally the result of bad nutrition and disease.

A third cause of destitution is lack of employment opportunities. In the villages, work is largely seasonal in agriculture and insignificant in other occupations. Employment in cities, and towns is better paid, but is limited to a small proportion. It is significant that the number employed in factories has not significantly increased during the last five years.

Unwillingness to work.

Fourthly, destitution is of the person's own seeking, his unwillingness to work generally or to work except in certain occupations. There is still much snobbery about the work certain castes, or classes should do. Manual work is generally refused by those even slightly educated. Domestic service also is confined to certain classes. Those unwilling to do any work at all, generally rely on others earning for them. Apart from women, this class is still considerable.

A certain proportion of destitute become beggars. The causes of beggary are, first that it is an easy profession, second that it is frequently very paying, and third that it provides opportunities for an interesting life, shared by the beggars together. A very revealing book is the "Mask of the Lion" in which lepers are described as enjoying their freedom, almost as if it was an adventure.

Beggary is encouraged first by the disposition of the people to be charitable, second by the attitude that beggars will be always with us and third by the absence of adequate poor or work-houses. It is a little difficult to change personal attitudes. Beggars collect at places of worship, where frequently a sense of guilt makes a person drop a copper. They collect at places where people are detained, bus stops, level crossings, where they succeed by importunity when they fail otherwise to excite charity. The fact that the State has no adequate provision for beggars stimulates a sense of responsible generosity. The problem therefore is how the State and public institutions can provide for all beggars, so that the public is not touched by any sense of pity for the beggars on the road.

Strategy in Madras State.

In the Madras State, the strategy against beggary is based on the provision of Poor and Work-Houses. The first proper work house was established for 500 able bodied beggars at Melpakkam. This permitted the majority of adult beggars being swept away from the streets of Madras. They were either taken to the workshop or made themselves scarce for fear of being taken there. The result was that work was obtained from the able bodied at the work house, while work was adopted by those who had resorted to beggary only because it was a better profession. On the average, for one beggar taken to the workhouse, nearly four returned to their own occupations. The steadily growing tide of beggars from the villages also stopped. The workhouse itself was a good economic proposition, on one hand it trained the beggars to an occupation and on the other, it took work from them, equal nearly to half the cost of their maintenance. The success of this work-house encouraged government to establish similar ones in important Municipalities, which were offered a capitation grant of Rs. 10 for each beggar and the free services of the police staff. For the juvenile beggars who still infested the streets,

(*Continued on page* 20)

Tamil Fiction To-day:

A Blend of Realism and Ethical Idealism

By Sri T. P. MEENAKSHISUNDARAM,
Professor of Tamil, Presidency College, Madras.

Tamil fiction, as referring to the modern novels and short stories thanks to the Western contact, was born and has grown into its present status all within the last seventy years or so.

The first novel, "Pratapa Mudaliar Charitram" was an original contribution by a poet occupying an important place in the judiciary, written in an easy flowing style of the day. At the end of the last century came another novel marking the next landmark from the pen of a young vedantin developing additional dimensions of literary beauty and philosophical significance. Madhavayya's "Padmavathi Charitram" brought the novel form true to the twentieth century.

Bharathi's "Chandrikayin Kathai", though incomplete, as a beautiful fantasy, is a next landmark. The novel has thus assumed and developed its own Indian and Tamilian character—illustrating the old idea of literature as something ennobling and delightful like the talks of the spiritually great, and the underlying ethical idealism without losing contact with the work-a-day world.

The first great task was to reshape the language and its idiom, to find the rhythm of the spoken tongue, to realise the poetic beauties of the colloquial speech and with the help of this inspiration to write in the new language of the New Fiction in a natural vein. This is the age of reason and common sense, prose and speech and its potentialities and possibilities. The experiment is still going on, and one has to admire and revere the new heights reached, the unknown depths plunged and the ever-widening horizon familiarised through this language in the novel and to a greater extent in short stories.

As for the choice of the stories, as already mentioned, first came the native soil. But later on, translations from the Western novels and fictions of other languages of India were attempted with great success, gaining thus the necessary training ground and indispensable inspiration.

In the first quarter of this century, there was a great danger when the works of G. W. M. Reynolds and French sex novels came to be translated. Even Marai Malai Adigal came under this influence, but as usual great genius escapes the danger to make a new contribution—Kumudhavalli or Naganattarasi. There still continues the production of horror stories, unfortunately often intended for children.

But this is nothing peculiar to Tamil Nad, India or East. One other interesting fact is this though translations are everyday made from distant languages, no translations came from the nearer Dravidian languages to any appreciable extent.

But the novel and the short story have escaped these ever-persisting dangers, and to-day they are a migtly force in Tamil for good. V.V.S. Iyer and Rajaji took to short story writing now and then, to give a living form to their ideals. That shows its strength and validity if not their success. The historical novels of Kalki familiarising even the man-in-the-street with the glories of the Pallava and Chola age are no mean contributions. Perhaps, their frightening bulk, due to their having been written as weekly serials, may not appeal except to those whose lives are a long-drawn leisure of afternoons.

There are people who had studied Westrn fiction and its theories, and who, therefore, apply them to their writing in Tamil like the late lamented "Pudhumai Pittan" and some others who are still living. Some of them turn into critics, naturally very pessimistic, about the future of Tamil fiction. Criticism cannot but be comparative, but one must find the principles of criticism in Tamil fiction itself, because it is something with its own native colour and flavour, as shown by the very first Tamil novel Pudhumai Pittan's Short stories are beautiful poems if one may say so. Sometimes he writes the old puranic stories always concentrating on one and inspiring us to see its inner depth and glory, beauty and significance, with all his frantic efforts at shaping the language to his purpose.

Epic has no hope of blossoming in the age and novel has taken its place and short story takes the place of shorter poems.

Women are contributing their mite by giving us a view of modern domestic life which we would greatly miss but for their advent. People in various walks of life, as it were, from various corners of vantage, tell us with their mysterious pen-names how they see this varied life of new India. Propaganda is inevitable when everyone is anxious to see a better India grow, but sometimes the art of fiction is made to appear as the slave girl of Propaganda rather than as the Queen of Literature. There is a word "Marumalarchi" used by the modern authors to characterise themselves.

Apart from novels revealing the conflicts of sex and love, there are social novels and short stories. There are novels describing the freedom struggle of which there are not many in other modern languages. There are detective novels and those of psychological nature. There are novels about the villages slowly awakening to life; novels concentrating on a locality, therefore, full of local colour; novels depicting the life of Tamilians outside Tamil land, and novels depicting an age like the one covering the whole period of Gandhian movement in "Alai Osai". All are interesting in one way or the other, being original contributions of Tamil land. Names of authors form a worthy legion, the techniques are varied. Tamil may be proud of this contribution.

First Five-Year Plan's

Inspiring Record of Achievements

Targets Exceeded in Irrigation and Electricity

The plan of the composite Madras State originally envisaged a total expenditure of about Rs. 141 crores, but after the formation of the Andhra State from the 1st October 1953, the revised Plan provided for an expenditure of about Rs. 84 crores over the Five Year Period. This provision was subsequently increased to Rs. 86·42 crores consequent on the inclusion of new rural electrification schemes and certain other minor adjustments.

The actual provision made in the Madras Plan and the progress of expenditure on schemes included in Plan by major heads of development.

Heads of Developments. (1)	*Plan provision for* 1951–56. (2) In lakhs of rupees.	*Expenditure during* 1951–56.* (3) In lakhs of rupees.
I. 1. Agriculture Rural Development	902·19	857·27
2. Animal Husbandry	56·28	43·43
Dairying and Milk Supply	12·95	15·39
3. Forests	74·39	29·10
4. Co-operation	17·18	11·00
5. Fisheries	49·07	35·36
6. Rural Welfare Scheme	29·95	76·61
	1,142·01	1,068·16
II. Irrigation	2,018·50	2,086·00
Power	3,086·00	3,067·81
	5,104·50	5,153·81
III. Industry—		
Cottage Industries	44·44	52·19
Other Industries	128·13	112·68
	172·57	164·87
IV. Highways	357·76	297·41
V. Social Services—		
1. Education	493·86	406·04
2. Medical	247·80	247·58
3. Public Health	518·51	498·86
4. Housing	189·61	151·95
5. Amelioration of Backward Classes	415·73	449·13
Total	1,865·51	1,753·56
Grand Total	8,642·35	8,437·81

* Represents actuals for 1951–52 to 1954–55 and Revised Estimate for 1955–56.

In addition to the above items, there was an expenditure of about Rs. 7·60 crores on C.D., N.E.S. and L.D. works programmes. It may thus be seen that taking the plan as a whole, there was no appreciable shortfall in expenditure. The targets set in the Plan were exceeded in the case of irrigation and electricity schemes and more or less in full, in the case of the other items.

The notable achievements under the different fields of activity were as follows :—

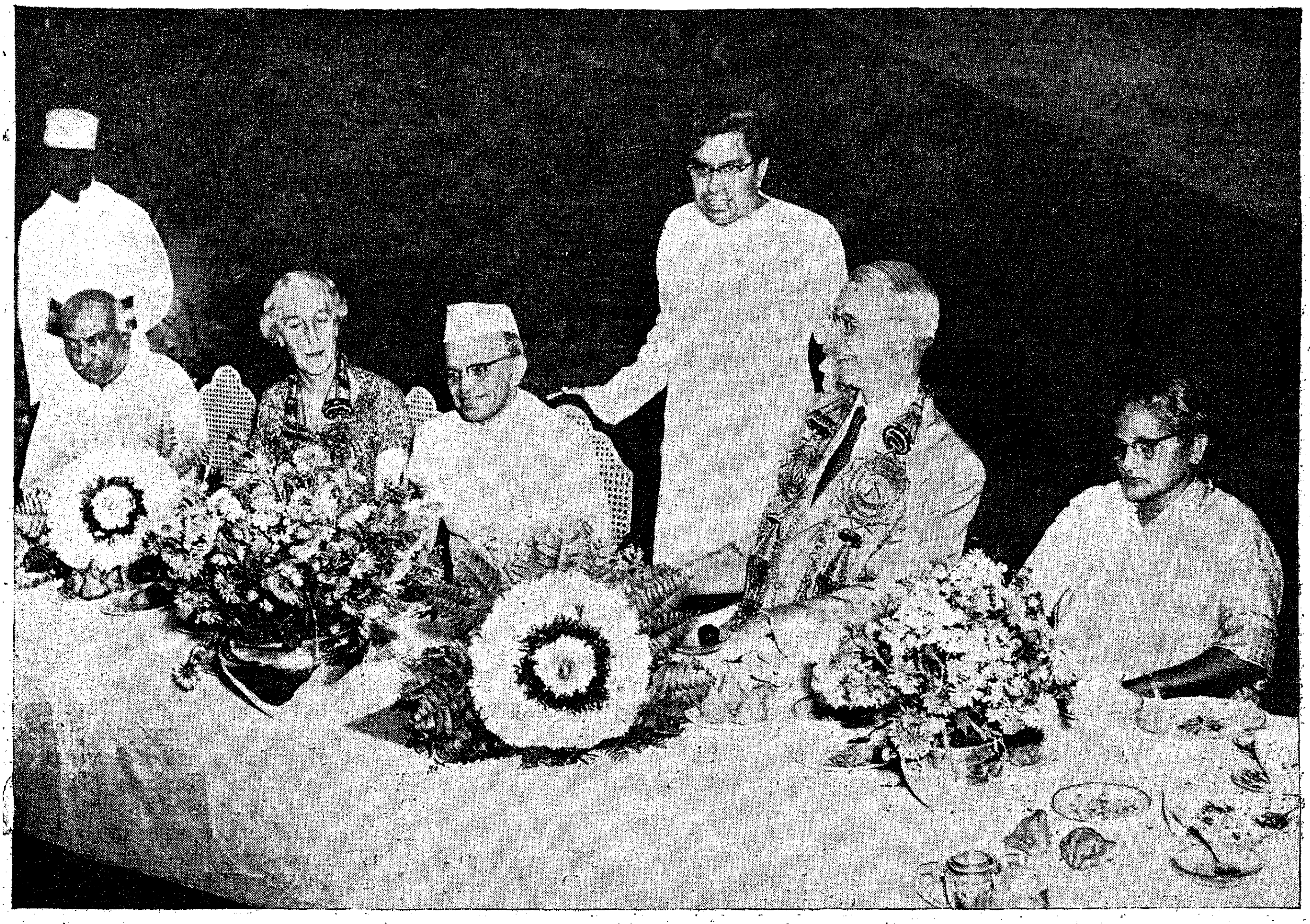
Irrigation.

Work on the Lower Bhavani Project, Mettur Canals and Malampuzha (since transferred to Kerala) was almost complete and water had been let out for irrigation. The other major projects like Araniar, Manimuthar, Krishnagiri, etc., were either in an advanced stage of completion or were making satisfactory progress in execution. About 2·35 lakhs acres were brought under irrigation by the end of 1955–56, against the target of 2·43 lakhs acres.

In addition to the above major irrigation works, about 2,500 small irrigation works were completed benefitting a total extent of 4·60 lakhs acres (existing area 4·28 lakhs acres and new area 32,000 acres).

Power.

The Moyar Hydro-Electric Scheme, the Papanasam II stage Extensions, the Pykara III Stage Extensions and the Madras Plant (Thermal) I and II Stage Extensions schemes were completed giving 111,000 K.W. of additional installed generating capacity. An agreement was reached with the Travancore-Cochin State for the utilization of Periyar waters for generation of electricity and work on the Periyar Hydro-Electric Scheme was commenced towards the end of 1954. This was by far the biggest scheme of its kind, so far undertaken by this State and it



Mr. Ellsworth Bunker, Ambassador for the United States in India, and his wife were entertained to tea on behalf of the Government of Madras on 10th April 1957. The picture shows Chief Minister Sri K. Kamaraj, Mrs. Bunker, Governor Sri A. J. John, Finance Minister Sri C. Subramaniam, Mr. Bunker and Srimathi A. J. John.

is expected to be completed by 1958–59, providing an additional generating capacity of 105,000 K.W.

Madras leads all other States in India in rural electrification. By the end of 1955–56, electricity was extended to nearly 3,500 villages and small towns and connections were given to about 30,400 agricultural pumpsets.

Agriculture.

Agriculture being the mainstay of the bulk of the population of the country, special emphasis was laid on increasing agricultural production. All the intensive cultivation schemes which were then under execution were enlarged in scope and continued under the First Five-Year Plan. These schemes provided for use of improved strains of seeds, application of green manures and chemical fertilizers on a larger scale, besides extension of irrigation facilities and bringing new areas under the plough by tractor reclamation. Fourteen thousand and four hundred tons of improved paddy seeds were distributed during 1955–56. About 93,900 tons of ammonium sulphate were distributed in 1955–56. And this is nearly double the quantity supplied in 1950–51. An area of 196,000 acres was covered by the Departmental tractors during the Five-Year Period and soil conservation work was completed in a total area of 15,800 acres. Plant protection work was undertaken vigorously and the total estimated savings of foodgrains as a result of the treatment of pests and diseases of crops was 7·5 lakhs of tons during the Five-Year Period.

The production of cotton increased from 1·95 lakhs bales on 1950–51 to 3 lakhs bales in 1955–56 due to the new areas brought under cotton cultivation under the Lower Bhavani Project and the improved practices adopted by the ryots.

As a result of the various measures enumerated above, this State has largely attained a state of self-sufficiency in regard to principal foodgrains.

Attention was paid to the development of vegetables and fruits. The Seed Depot at Madras and the Agricultural staff attached to it continued to do very useful work by way of development of Kitchen gardens in the City and its extensions.

The number of institutions for treatment of cattle diseases increased and rinderpest was brought under effective control. Fifteen artificial

Five Polytechnics opened on Regional Basis

insemination centres had been established with 60 key villages attached to them and artificial insemination as a means of improving the quality of livestock became more and more popular. The Madras Milk Supply Union and other Urban Milk Societies were catering to the needs of the urban population with a daily production of about 30,000 measures of milk.

Under Fisheries, 14·32 crores of fingerlings were collected and stocked in inland waters as against a target of 19 crores for the Five-Year Period. Useful work was done by way of improvement of indigenous craft and tackle and popularizing the adoption of mechanised fishing.

A number of afforestation schemes were taken up in the reserved forests and 26,700 acres were planted with fuel species, 2,300 acres with softwood and 4,000 acres with wattle and bluegum. An area of 1,700 acres was planted up with casuarina.

Systematic soil conservation work was taken up in the low hill areas and the area tackled during the Plan period was 2,900 acres.

Industries.

Five Polytechnics were opened on regional basis for providing training in a number of certificate and diploma courses and arrangements for imparting advanced instruction in leather-tanning and leather goods manufacture were made in the reorganized institute of leather technology. A chemical testing and analytical laboratory was established for analysing minerals and other raw-materials available in the State. A calendering plant was installed at Erode to give better finish to handloom cloth. Substantial progress was made under the Khadi development scheme which provided for the employment of 54,000 spinners and 2,100 weavers. The target of 45 lakhs yards for the five-year period had been exceeded and the actual production of khadi in 1955–56 was 16·36 lakhs yards. The scheme for the development of Palmgur industry by organizing Co-operative Societies for the benefit of the ex-tappers and giving them training in improved methods of jaggery production is working well. The production of palmgur was generally in accordance with the target, the actual production in 1955–56 being 26·93 lakhs maunds.

Highways.

One thousand five hundred miles of new roads had been formed mostly for giving connection to villages, besides effecting various improvements to existing roads. Excluding works on National Highways about 200 major bridges and 280 minor bridges were completed. Besides this, about 21 major items of bridges and road works were under execution from the Government of India grant for roads of inter-State and economic importance.

Education.

The enrolment in elementary schools increased from 25 lakhs in 1950–51 to 29·5 lakhs in 1955–56. About 2,375 basic schools were opened including the Elementary Schools converted into basic schools and the enrolment of children increased from 30,000 to nearly 2½ lakhs. There was also a great expansion in the field of Secondary and University Education during the period.

Health.

Improvements to the General Hospital, Madras and certain District and Taluk Headquarters Hospitals were carried out, providing for an overall additional bed strength of 1,339. The Madurai Medical College was opened and it provides for an admission of 65 students, which would be increased to 100 on the completion of the entire scheme. The number of admissions to the Stanley Medical College was increased from 72 to 100 by effecting necessary improvements and construcing new buildings. Tuberculosis clincs were opened in some District Headquarters Hospitals and 3 Leprosy centres and 4 Leprosy clinics were also established.

Good work was done for controlling malaria. Malaria had almost disappeared from all the districts except Salem, the southern portion of which was taken up for control work. Attention was also paid to nutrition research and health propaganda and publicity. About 9,300 driking water-wells were provided under the Rural Water-supply Scheme, in addition to a number of wells sunk for the benefit of Harijans. Seven Urban Water-Supply Schemes and one drainage scheme were completed during the period and 27 schemes under progress. Besides the above, water-supply and drainage schemes costing about Rs. 140 lakhs were in various stages of progress in the Madras City.

The Urban Housing Scheme was working well. There were 175 Urban Housing Societies which constructed 3,300 houses against a target of 2,500 and 650 houses were in various stages of construction. 936 houses were under construction in the colonies at Erukencheri and Sembiam in the Madras City for the benefit of the industrial workers, at the end of the First Plan period.

Efforts for the uplift of the Backward Classes comprising Scheduled Castes, Scheduled Tribes, Ex-criminal tribes and other backward communities were intensified. There are now 917 Harijan Welfare Schools providing elementary education to about 85,000 Harijan children. A sum of Rs. 30.9 lakhs was spent in 1955–56 towards boarding grants and supply of midday meals and maintenance of Government Hostels for the Harihan Children. During the plan period, about 90,000 Harijan students were given scholarships, house-sites were assigned to about 13,500 Harijan families and about 700 drinking water wells were either constructed or repaired for the benefit of the Harijans.

About 20,000 scholarships and 1,900 boarding grants were given to the students belonging to "Other Backward Classes" during the Plan period.

Community Development Programme.

The programme was in operation in 4 community Projects, 24 community Development Blocks and 38 N.E.S. Blocks at the end of 1955–56 covering a population of 88 lakhs against the total rural population of 290 lakhs in the State. Large contributions was made by the villagers for such works as roads, school buildings, wells, dispensaries, playgrounds, etc., under the programme. Village Panchayats came forward in large numbers to take part in the development activities by undertaking construction works under the programme The total contributions made upto the end of 1955–56 was of the order of Rs. 122 lakhs.

Bee-keeping in the National Economy

By Sri H. VISWANATHAN, Bee-Keeping Development Officer, Madras.

The basis for India's national prosperity is her agricultural economy since 75 per cent of her population lives in villages with agriculture as the main occupation. It is common knowledge that by agriculture alone the ryots can hardly make both ends meet. Poor yields, high cost of production, and other factors which cause economic depressions from time to time worry them. In such precarious conditions, anything that tends to increase the yield of crops and promises to improve their lot should be welcome to them.

The honey bee is said to be the best little friend of man assisting him tremendously in his food production undertakings. In addition to producing honey, a sweet and valuable food, it aids farming by rendering effective pollination service without which seed-setting of many a fruit tree, fodder crops, etc., would be imperfect resulting in the poor yield of crops. The secret of success in farming lies in the recognition of the great significance attached to bee life for increased food production and thus, it behoves all the more that farmers should bestow greater attention to the care of the bees and the conservation of their life in their own interest and in the nation's interest. Bee-keeping in many civilized countries is considered as a branch of national service as it aids to improve the health and prosperity of nations. Let us note what Sir C. V. Raman, Nobel Laureate and a great Scientist, has said about Bee-keeping. He said "Bee-keeping is a matter of the highest importance for the health and economic welfare of India". It merits our immediate and scrupulous attention. Again, other scientists have also brought to our knowledge that bees help the garden, the garden in turn helps the bees and man reaps the harvest of both and it is up to us to fully exploit them.

Better farming does not stop with better soil management and more efficient harvesting tools employed. These alone will not result in the maximum yield unless the flowers produced in the fields are visited by bees and pollination effected. Thus pollination becomes the key to our agricultural economy. Authorities estimate that more than 80 per cent of the pollination task required for the set of fruits and seed crop is accomplished by the honey bees. Planned pollination can well become one of the most beneficial, profitable, and popular agricultural practices in our future farm programmes. For successful pollination service of the various crops, it may be necessary to have one to three strong colonies of bees for every acre of crops in bloom. It may be well imagined as to how many bee colonies would be necessary for the country-wide pollination service of the different crops.

Bees as pollinators.

How and why the honey bees are considered as most effective pollinators? Because of their food habits and habit of remaining constant to a single floral source once they start work on a plant for nectar or pollen and also because they busy themselves in pollination much earlier than any other flower-loving insects during the blossoming period and are invariably the last to leave the field at the close of the period, they are considered to be the best suited for the purpose. They dominate the fields and it may appear that they have a monopoly for themselves. The bees cannot be effectively replaced by other insects or by any mechanical devices to perform the vital task of pollination on an extensive scale. So also for producing natural honey, they are indispensable and cannot be replaced. For every rupee the bee produces in the form of honey, it helps the gardener to harvest 10 to 15 rupees worth of extra fruits.

For a country of the size and agricultural importance of India, it would be difficult to estimate in money value the advantage which will be derived by an extension of bee-keeping in the rural areas. Apart from the fact that it can provide employment to hundreds and thousands of persons in the country, it can cause to increase the output of crops which alone should be treated as a great gain to the country. Besides there can be the harvest of honey worth several crores of rupees and bees-wax, another bee product which is in great demand for its commercial use in the manufacture of good quality wood and leather polish, high class canoles, soaps, medicated ointments, water-proof materials, etc. For the production of honey, there is no need for any extra acre of land to be tilled, nor is there any need to displace any of the present crops. The bees are there to manage to produce honey even from the wild growths. Only they need proper shelters and good care, and that can be answered by taking to Scientific and Systematic Bee-Keeping.

Subsidiary to Agriculture.

Bee-keeping for profit or pleasure has many sided advantages. It is a clean and fascinating as well as health giving open air occupation fit for both sexes requiring huge outlay or space, negligible running expenses, involving no daily attention nor any huge machineries from outside. It is essentially a Cottage Industry, subsidiary to agriculture, based on decentralized system. It is free from caste prejudices and political implications. Honey and bees-wax, the chief products of the industry, have great and universal demand and have keeping qualities. Other products such as bee Venon, royal jelly pollen pellets and propolis (a vegetable gum collected by bees and used in the construction of their cells for cementing and polishing) are gaining importance for their medicinal properties and the demand for their supply is also on the increase. To keep bees one need not even possess a garden, for the bees have their wings and have a flight range of half to one mile radius and they will gather their needs from the flowers raised in other's gardens around; and return to their own hives because of their high homing instinct. This can be taken advantage of by a poor cottage dweller who may employ them, to augment his income

No one would object to his keeping bees for he will be doing only a beneficent deed to his neighbours as by the visits of his bees others will have greater yield of crops. A bee-keeper is recognized as a public benefactor. Again more precious than all these are the valuable lessons in the Science of Social Life one may learn from the bees and their way of life. To observe them inside the hive, on their wings and on flowers is like turning the leaves of the Book of Knowledge. There is wide scope for research.

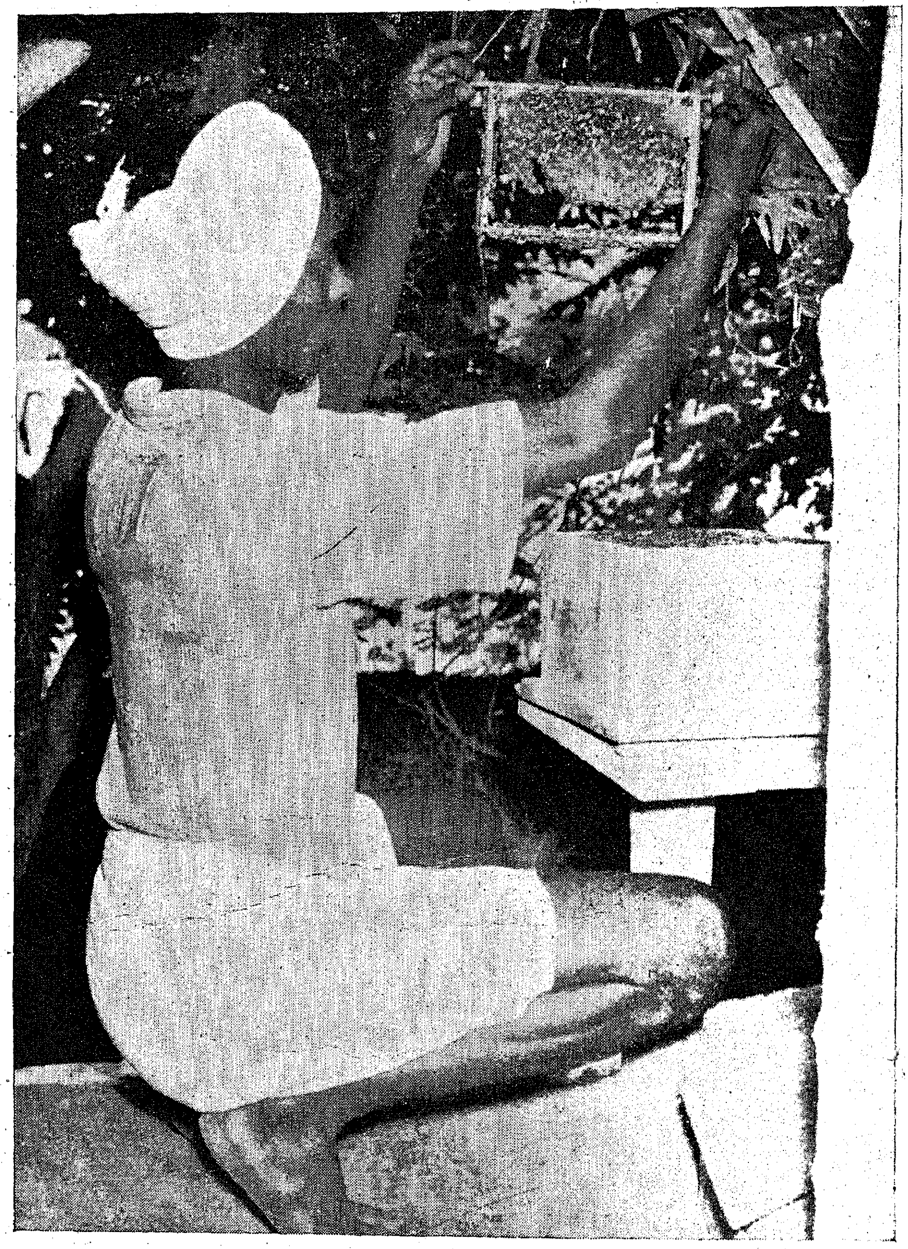
The life of the bee is a tale of a Strange Republic or a Community of individual lives dedicated to a common cause, with all the toil and at times, ruthless sacrifice that such a cause entails. The bees are praised for their deligence, industry, restraint, thrift, co-operation, self-sacrifice, etc., the qualities of which are indispensable to the well being of a society. The educational aspect of the industry should not be lost sight of when education through craft is stressed under Basic Education System. Through bee-keeping, lessons on Botany Biology, Mathematics, Engineering, Chemistry, Social Studies, etc., can be imparted as the life of the bee is linked with everything in the Universe and its rhythmic movements.

Bee-keeping to be successful and profitable must be well done. It demands watchfulness, intelligent and hard work and good equipments, standard and uniform. As in any other branch of industry, carelessness, neglect lack of knowledge and application and poor materials to work with are as certain to bring about failure in Apiculture. The profit derived from the bees depends on the locality, weather conditions, the strain of bees, the presence or absence of their enemies and the skill of the bee-keeper in manipulations according to seasonal requirements.

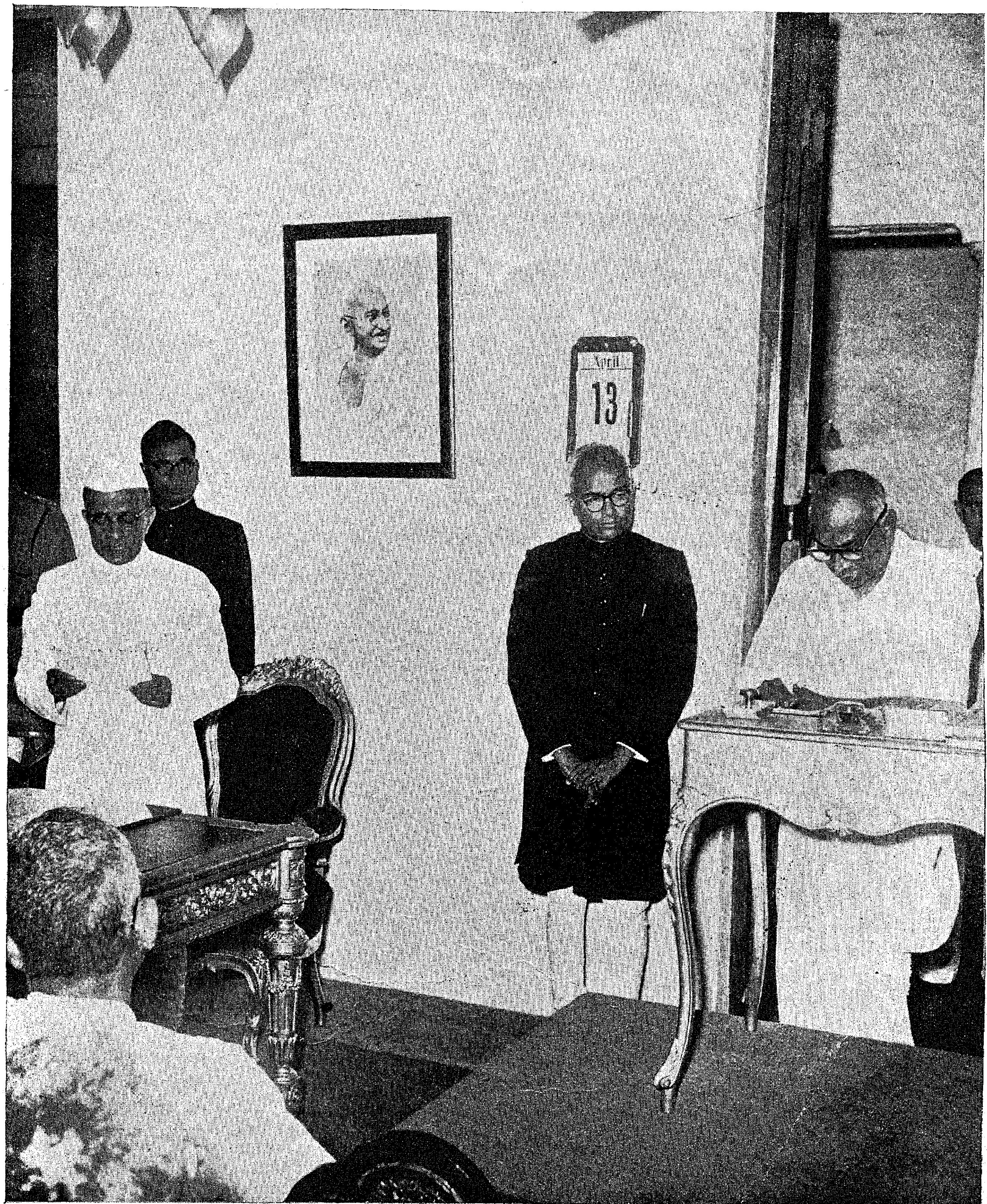
The bees thrive best in rich forest clad slopes and agricultural districts, preferably well wooded with heavy nectar and pollen yielding trees and plants. The suitability of a site for the establishment of an apiary is ascertained by the presence of a large number of natural colonies of bees as well as abundance of bee pasture plants found within a radius of about half to one mile. For surplus honey, the site and its surroundings must be dominated by a few species of plants and trees that come to flowering in rotation. There should be a wide range of flowering of the same kind of plant at close proximity, to obtain maximum quantity of honey from bee hives. In India, swarms of bees of various kinds, from the largest to the tiniest in the world, from the most stinging and dreadful to the stingless and harmless, abound in the regions of the ever blooming valleys of the mighty Himalayas, the Western Ghats and the Vindya Mountain Ranges. They are also traced along the river belts of the Ganges, the Brahmaputra, the Mahanadhi, the Godavari, the Krishna, the Cauvery, the Narbada, the Tapty and other numerous streams.

Bee-keeping would be profitable at sites that lie between the altitude of 2,000 feet and 6,000 feet above mean sea level and also in plains along the river belts, fruitg-rowing areas and where irrigated cotton is extensively grown. On the hills, an average yield ranging from 20 to 30 pounds of honey per hive per year and in the plains 5 to 10 pounds per hive per year may be expected depending on conditions

(*Continued on page* 27)

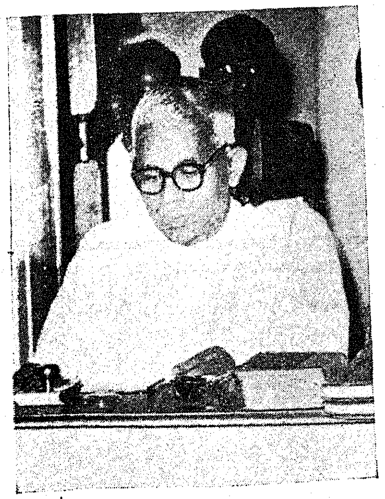


THE NEW MADRAS MINISTRY

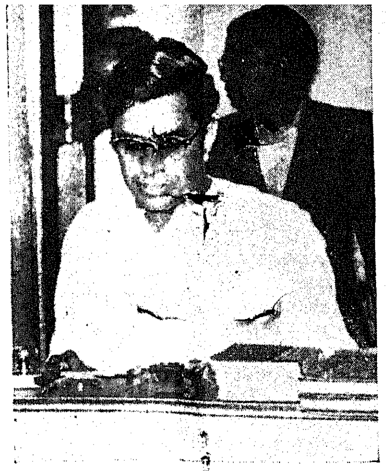


The new Madras Ministry was sworn in on April 13, the Tamil New Year's Day, at the Cabinet Room of the Secretariat. The picture shows Sri A. J. John, Governor, swearing in Sri K. Kamaraj, the Chief Minister of Madras State.

SWEARING IN OF MADRAS CABINET



Sri M. Bhaktavatsalam,
Minister for Home.

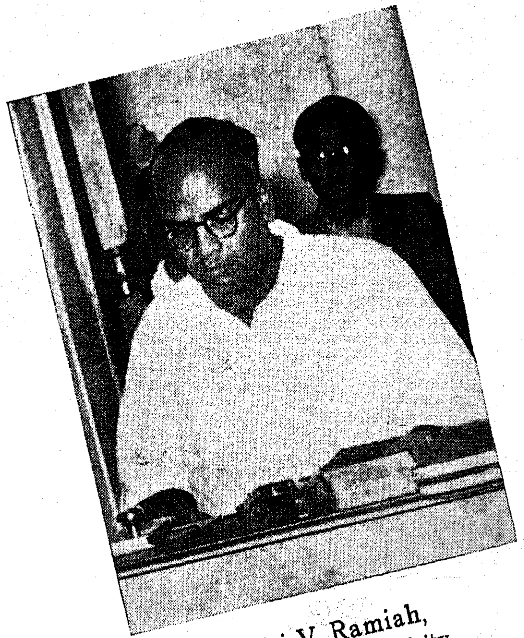


Sri C. Subramaniam,
Minister for Finance.

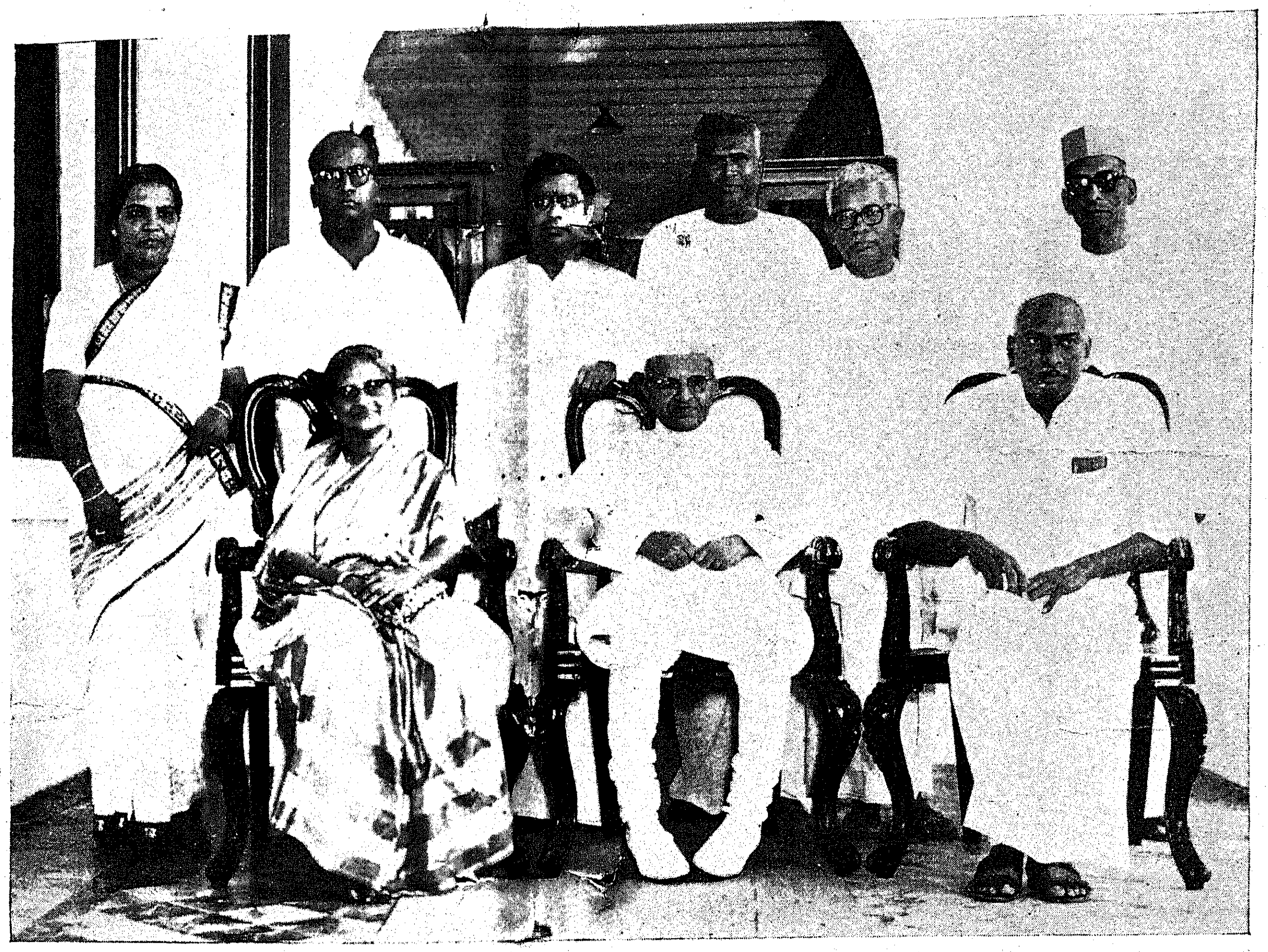
Sri M. A. Manickavelu,
Minister for Revenue.

Sri R. Venkataraman,
Minister for Industries.

Sri P. Kakkan,
Minister for Works.



Sri V. Ramiah,
Minister for Electricity.



Chief Minister Sri K. Kamaraj and six of the seven Ministers with Sri A. J. John, Governor, and Srimathi John. The group photo was taken immediately after the swearing-in ceremony on April 13, 1957. Sri R. Venkataraman, Minister for Industries, was sworn in on April 26, at Rajbhavan, Ootacamund.

Srimathi Lourdhammal Simon,
Minister for Local Administration.

Vol. XI NO. 5 MAY 1957

Veterinary Education and Research in the Madras State

By Sri BERTIE A. D'SOUZA, Principal, Madras Veterinary College.

The Madras Veterinary School which was first started in 1900 was subsequently named college and opened in the year 1903 in a rented building known as Dobbin Hall. The Madras Veterinary College thus strated functioning in October 1903 with 20 students on the role.

To start, with, the Veterinary Course was spread over a period of three years, each year comprising 9 teaching months, divided into two sessions. Students admitted to the course were matriculates of minimum age of 18 years. Scholarships of the value of Rs. 10 per mensem were awarded. Students were examined by a board of examiners appointed by the director-General, Civil Veterinary Department. Successful students in the final examination were awarded a Diploma.

On the basis of the recommendation of the Royal Commission on Agriculture and with a view to raising the standard, the curriculum of the Diploma course was revised and adopted from the Academic year 1930–31. The period of study remained the same but the course provided a basic training in most of the essential subjects pertaining to Veterinary Science.

The first affiliated College.

Though this was the fourth institution to be started in India this was the first Veterinary College to get itself affiliated to an University. The University of Madras recognised this institution as a constituent college in 1935 to impart instructions to the degree of B.V.Sc. of the University. Entrance qualification was now raised to that of Intermediate examination in Arts and Science of the Madras University, having offered either Chemistry or Natural Science as one of the optional subjects. The students had to undergo a course of six weeks in a Livestock farm. In the year 1938, the duration of the Diploma course was extended to four years, with a view to providing students more time to study the different subjects. Consequent on the extension of the diploma course from 3 to 4 years the B.V.Sc. degree course was extended to five years from the year 1938–39. There are four examinations, viz., Preliminary intermediate, I and II and the final examination. Students hve to pass the Diploma course Examination of each year before being permitted to take up the degree examination of the next year.

On the recommendation of a Veterinary Education Committee of the Indian Council of Agricultural Research to render the curricula of studies uniform in the various colleges in India and giving prominence to the subjects of Animal Husbandry, the five years degree course was remodelled into one of 4 years and one term, abolishing the Diploma course. With the sanction of the Madras University, this revised course was introduced from the academic year 1946–47 and the Diploma course was abolished.

University examination is held at the end of each year and the students passing in the examination are promoted to the next higher class. The passing minimum is 50 per cent of the marks in the written and oral parts taken together and 50 per cent of the marks in the practical examinations.

At the end of the first, second and third year courses of study, students are required to undergo practical training in Animal Husbandry in a Livestock Farm for one and a half months during the vacation. The period of such training is 2 months for the final year students. The students of the final class are also taken to Indian Dairy Research Institute, other Livestock Farms, Agricultural College, Coimbatore, Institute of Veterinary Preventive Medicine for instruction in the manufacture of biological products and are also given training in artificial insemination.

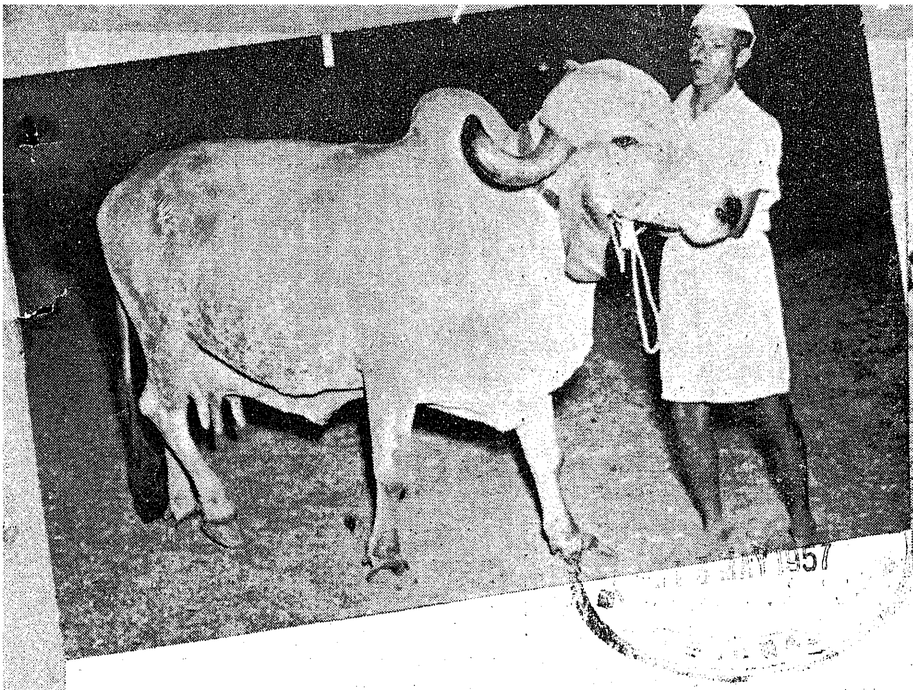
Thus the present B.V.Sc. degree course is a well-balanced one imparting instruction in Veterinary Science and Animal Husbandry of a high undergraduate standard. The number of students being admitted to the B.V.Sc. course was successively raised and now 120 students are admitted every year.

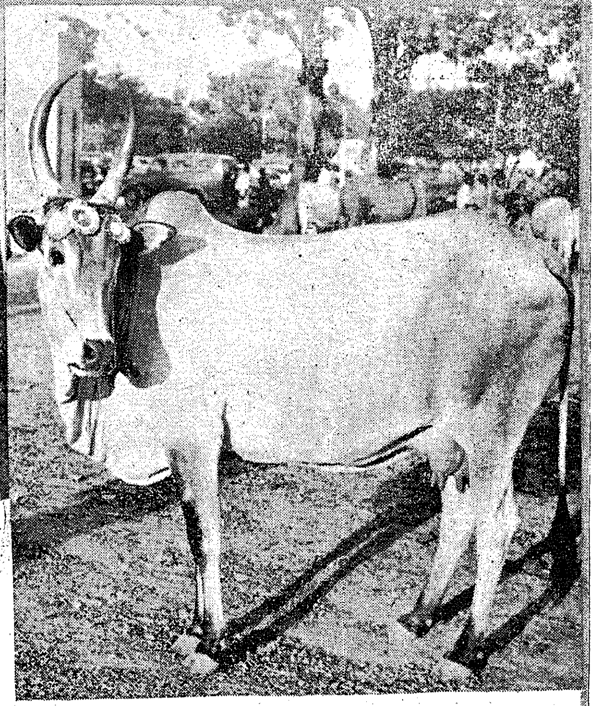
Refresher Course.

The Refresher Course was started as early as 1922 and its duration was 6 months. This period of six months was subsequently extended to 9 months from 1935–36. The course was suspended during the war years but again revived from 1950–51. The duration of the present course is 3 months, and it is intended to train three batches of six students each to keep the Veterinary Assistant Surgeon in the field up-to-date in their knowledge of recent developments in Veterinary Science and Animal Husbandry. Of the three months, seven weeks are spent in this College 2 weeks at the Institute of Veterinary Preventive Medicine and three weeks at the Livestock Research Station, Hosur.

Stockmen Course.

In order to make it possible to make available expert Veterinary aid to all the villages of the State it was found that a larger number of Veterinary Surgeons were needed than could be turned out by this College. Therefore as a short time policy it was decided to offer an intermediate agency to carry Veterinary first aid to the remotest villages. With this object, stockmen-*cum*-compounder course was started. Subsequently, this was changed to stockmen course and this again to Veterinary and Livestock Inspectors course. Inasmuch as the above courses were found to be not quite suitable for intended objectives, the present stockmen course was introduced in the year



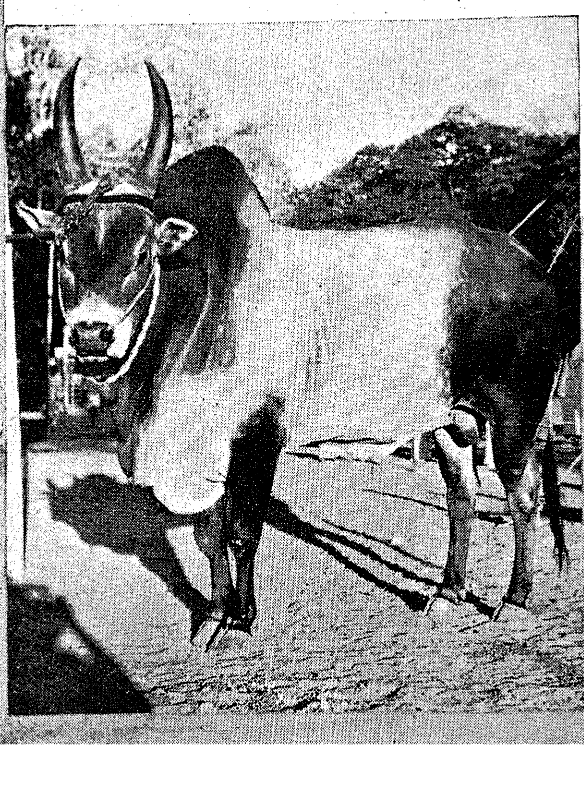


THE STATE CATTLE SHOW

A State Cattle Show was held under the auspices of the Animal Husbandry Department at the Teynampet Congress Grounds in the last week of March.

The show proved to be a great success in driving home the importance of improving the cattle wealth of the State Sri M. A. Manickavelu, Minister for Revenue, inaugurated the Show and Sri A. J. John, Governor, presided over the function organised for the distribution of prizes. Srimathi John distributed prizes.

The picture shows some of the best specimens exhibited at the Show. Top left: The sacred cow Gir which is associated with Lord Krishna. Top right and bottom left: The Kangayam and cow bull from Palayakottai Pattagar Farm. Bottom right: The Australian Sheep from Hosur Livestock Farm.



1954–55, at the Livestock Research Station, Hosur. Originally 50 students were admitted, but in 1955–56 the number was doubled and 100 were admitted. As even this number was considered to be inadequate to meet the needs of the State and in carrying out the allotted task in the second plan two additional centres were opened this year, one at Pudukkottai and the other at Orathanad, Tanjore district each with 50 students. Thus in all 200 students are undergoing training for this course.

Flaying Course.

To minimise the great loss caused to the Leather Industry in this State on account of the faulty flaying and also to produce quality hide and skins for both the industry and the export trade, better and scientific methods of flaying had to be adopted. A flaying school was started in this college in the year 1953 to train professional flayers. Sixty Professional flayers, both butchers and new recruits and 12 Veterinary Assistant Surgeons selected for the Refresher course are being trained each year. This course is spread over a period of 3 months and these seeking admission should be over 18 years of age and should be able to read and write one of the regional language. A stipend of Rs. 10 is paid to each licensed butcher undergoing training and Rs. 25 each to the new recruit. Successful candidates are awarded certificates. Two auxiliary centres are run in other centres of the State as well.

Post-Graduate Course in Veterinary Parasitology.

Realising the importance of control of parasitic diseases in successful Animal Husbandry, a post Graduate course in Veterinary Parasitology was instituted in this College in the year 1955–56, with a grant-in-aid of the Indian Council of Agricultural Research. This is of 9 months' duration and trains Veterinary Assistant Surgeons from the different States of India in the control of parasitic diseases. Six students completed the course last year and five are undergoing this year.

Teaching Staff of the Madras Veterinary College.

The teaching staff at present consists of 11 professors, including the Principal, five Lecturers, 21 Assistant Lecturers and four demonstrators.

As mentioned before this institution was started in a rented building known as Dobbin Hall in 1903. Subsequently this building and its surroundings were acquired and buildings were constructed.

In 1949, the following additional works were completed. Extensions to Hygiene, Physiology, laboratories and Library, improvements to the pharmacology laboratory, additions and alterations to the dissecting blocks, constructing of a temporary shed for the Veterinary and Livestock Inspectors course which has subsequently converted into a small animal clinic, sinking of a well and constructing overhead tank of 5,000 gallons capacity.

Consequent on the increase in the number of students admitted to the B.V.Sc. degree course to 120, construction of a three storied building to house some of the Departments has, been sanctioned in order, that there might be sufficient space for the various laboratories. Lecture classes, etc., and this work has started.

Research.

Though research does not form part of the regular duties of the professors of the College, the heads of the various Departments of the College from the early days till to day engaged themselves in items of research pertaining to their respective subjects, some of the teachers have gained well merited recognition and brought credit to the college for their published work. After its affiliation to the Madras University, a number of the alumni of this College have taken the Post-graduate Research degrees of the University such as M.Sc. and Ph. D. after conducting research in the laboratories of this College on the subjects approved by the University. At present research scholars are working with the object of taking the Post-graduate degrees of the Madras University in the anatomy, Physiology, Pharmacology, Genetics, Pathology and Helminthialogy Departments.

The joint Indo-American team of experts on Veterinary Education appointed by the Government of India have recommended the Madras Veterinary College as one of the five advanced institutions, which should be developed into Regional centres of Post-graduate instruction and Research with the present staff and increased facilities and schemes have been drawn up with this object in view and sent to the State Government and Government of India. When the proposals contained in the above schemes are implemented and the Madras Veterinary College changed to a Regional Centre for Post-graduate instruction and Research in addition to under-graduate teaching it may be confidently hoped that the college will function at a still higher level and justify the recognition of the status of the college and the importance of Research in any scheme of modern scientific education, in animal husbandry and Veterinary Science, for the Development of animal industries and better living of people.

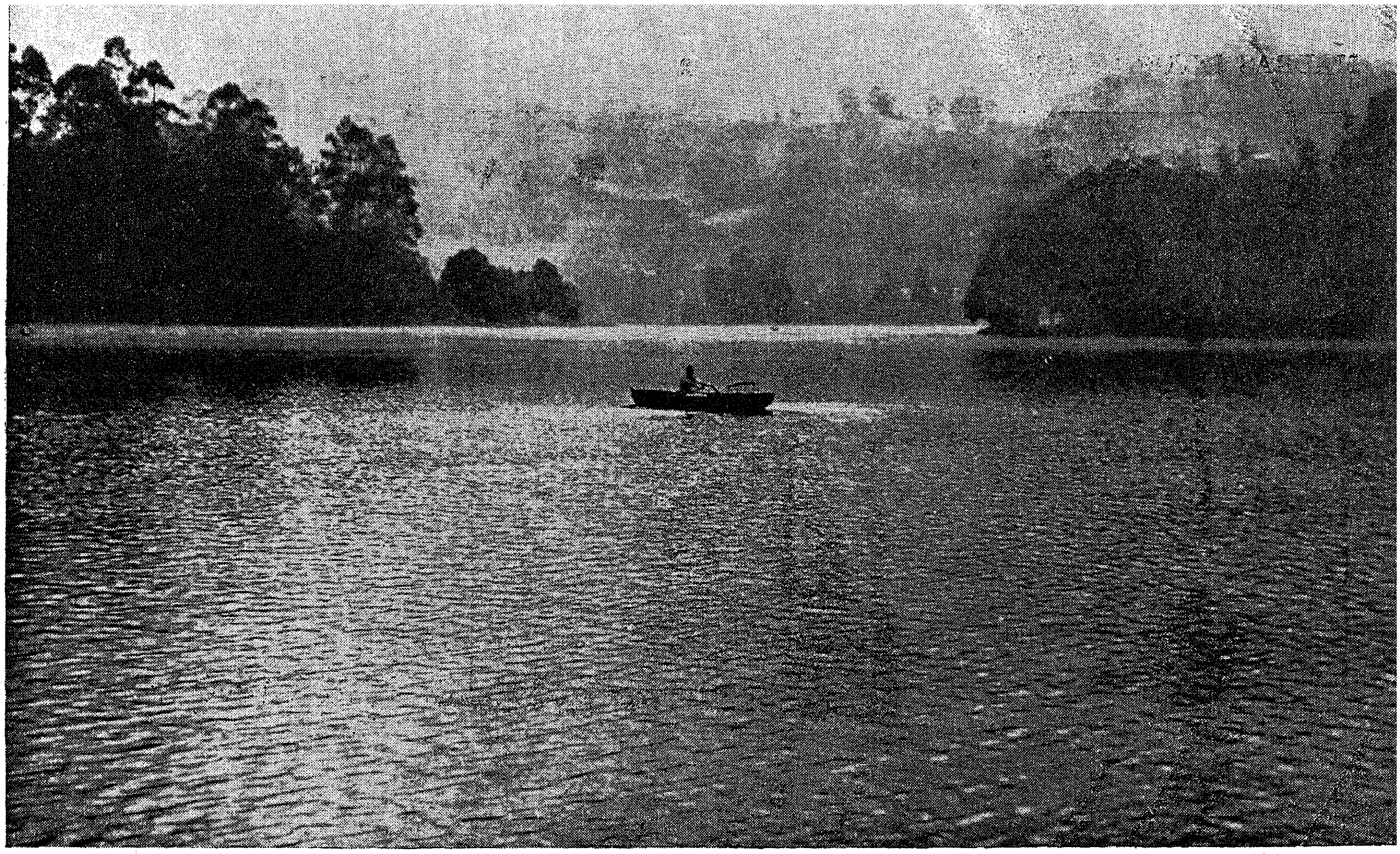
(*Continued from page* 8)

Government next opened in the premises given by the Corporation, a work house at Royapuram. The Madras Rotary Club donated Rs. 25,000 for equipment to train the inmates in handicrafts. There are about 150 boys now in the work house but there is accommodation for 150 more. The police are constantly instructed to round up more vagrant boys so that they may have a proper home and training.

Duty of the public.

In respect of the disabled and diseased, the Corporation, municipalities and certain recognised private institutions are subsidised to take inmates. On the whole, a good proportion of those on the streets have been removed. A leprosy home, now under consideration should take care of many more. On the whole Government is prepared to help institutions, which are properly run, to extend their accommodation for diseased beggars.

Though much has been done, we are nowhere near the end of beggary. Any general economic depression creates waves of beggars. The proper solution for the problem is therefore increase of gainful employment, which is the purpose of the Five-year Plans. To the extent beggars are eliminated not only will a disgrace disappear from our towns and cities, but crime and disorder will make way for honest work. The public can assist by hardening its impulses of indiscriminate charity, passing its mite, if it likes to organised institutions.



Kodai—"The Jewel of Hill Stations"

Kodaikanal has been rightly described as "The jewel of hill stations". Reputed as one of the three best places in the world, Kodai is climatically superior to any other hill station in India. The equable temperature and low average humidity of the place have helped to establish it as a sanatorium. Compared to the health resorts in India Kodai records the lowest maximum in summer and the highest minimum in winter. Occasional showers almost throughout the year is an added attraction. Situated on the southern crest of the Palni Hills at an altitude of seven thousand feet Kodaikanal with its hills and dales, rocks and lakes, sports and past time, and natural scenery is an holiday resort. The naturalist, the sportsman, the poet and the philosopher all alike will find it a veritable paradise.

The generous splendour of the summer day is never so gorgeous as in Kodaikanal. It is a gem of nature where you can recline "on the cool green ground, or in the weeds or by a river side or shady fountains, while among the leaves soft airs are stirring and the midday sun unfelt shines brightly round up in our joy".

Thanks to the pioneering efforts of the Englishman who was oppressed by the heat and humidity of the tropical sun Kodaikanal was discovered more than hundred years ago. The American Missionaries of Madurai founded a colony on the hills and the Collector of Madurai, Sir Vere Levinge was the first to construct a stone building in 1860. He was responsible for the construction of roads and bridle paths and for the introduction of European fruit trees and flower plants. Gradually Kodai grew attracting the attention of officials and visitors more and more and to-day it is a municipality with a population of more than ten thousand permanent settlers.

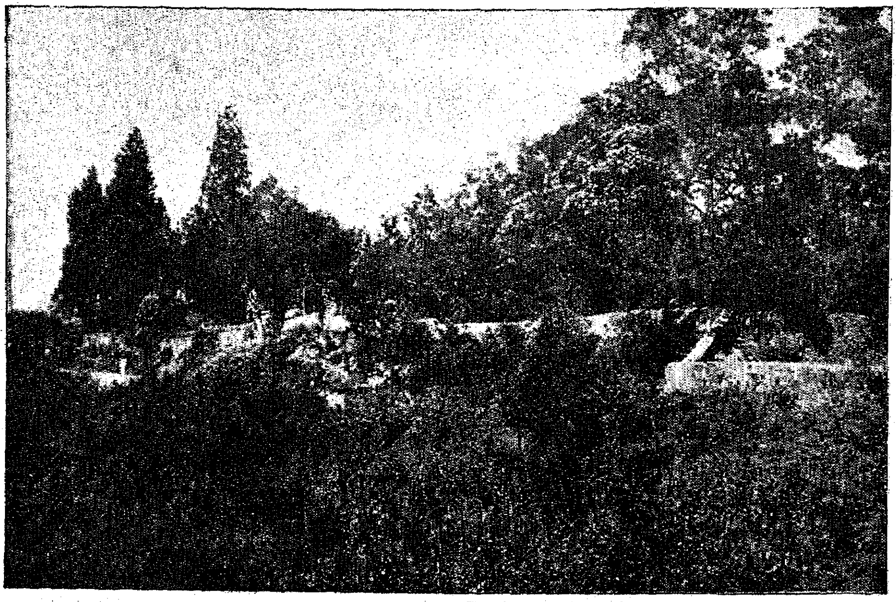
Kodai is easily reached from Madras by train and bus. The nearest air port is Tiruchirappalli which is 71 miles from Kodaikanal Road Railway Station. Those who proceed from Madras by train get down at Kodaikanal Railway Station. From this point a delightful run on the Ghat Road past rugged scenery for fifty miles brings the tourist to the destination.

At Kodai, the holiday makers will find everything for comfortable living also—good hotels, several boarding houses, numerous bungalows and plenty of social life.

If you intend holiday making in Kodaikanal, these are the tips to make it successful.

After you have feasted your eyes long enough on Kodai's prize possession, its lake, if you are a true lover of nature, you will not want to miss the opportunity which her varied charms provide within a comparatively small circumference on the hill. Indeed so wonderful is its aspect that it has often been likened to Switzerland.

On your very first evening in Kodai, you can take a stroll along the delightful



Coaker's Walk : A stroll along this wooded way presents the visitor with some of the best views which Kodai has at her command.

Coaker's Walk, very near, yet very pretty, presenting you with some of the best views which Kodai has at her command and in particular that of Mt. Perumal.

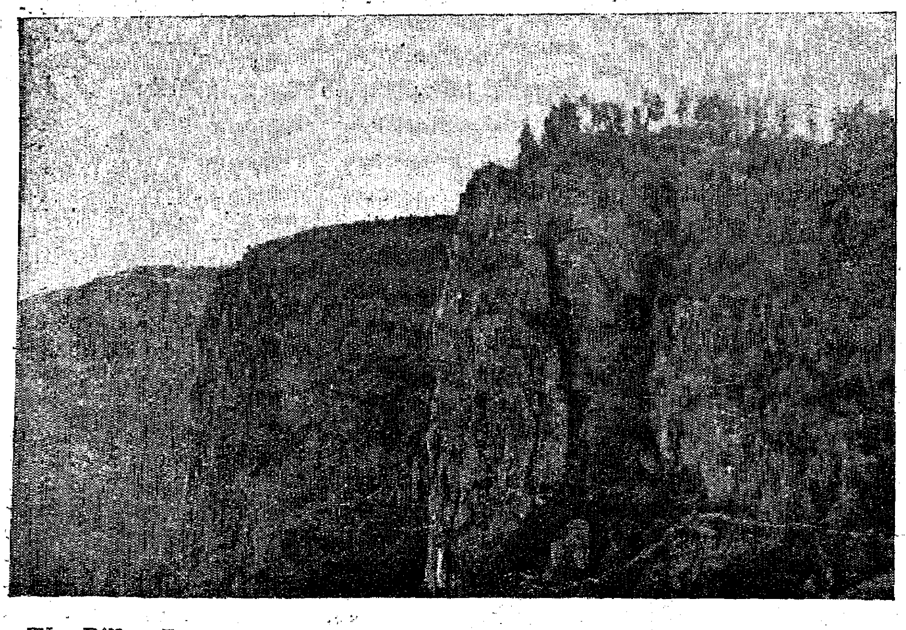
From this Walk, you also get a view of Dolphin's Nose, about three miles from the lake. A very wide plateau with stones jutting out here and there, Dolphin's Nose is a picturesque point with awe-inspiring precipices on either side.

A little expendition to Pillar Rocks would be exciting. The place is five miles from the lake. Three rocks stand shoulder to shoulder about 400 feet high, and sweep the plains from their peaks. Just at their foot is a pretty little cluster of trees, like the sholas of Ooty, where you can picnic rest.

You will notice a steep path somewhere to the right of the pillars. If you like peeping in caves, follow it. It will bring you to their entrance. If you want a still greater thrill, have yourself lowered by means of a rope and squeeze yourself back through the chimney or tunnel which will bring you back to daylight. After you have stopped blinking, you will realise that you have landed behind the Pillars.

When you are on the top of the Pillars look your right and you will see Doctor's Delight, about two miles beyond the Pillars.

Kodai is not just hill and dale. It is also water and fall. So your next trip should be to the waterfalls—the Silver Cascade, the Glen Falls, Pamber and Bear Shola Falls, the Fairy Falls, the finest of them all, less than five miles distant. After you have admired the grand sight you can get down to the foot of the falls and have a



The Pillar Rocks : Five miles from Kodai Lake three rocks stand shoulder to shoulder about 400 feet high and sweep the plains from their peaks.

The pretty little cluster of trees at the foot of the Pillar Rocks. This place is a picnic spot.

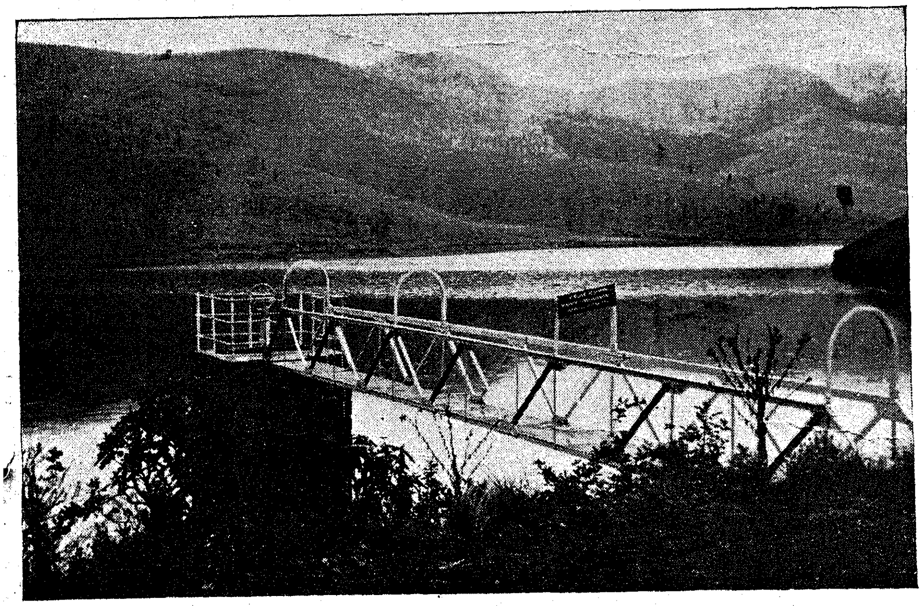
A typical stone building in Kodaikanal with green vegetation surrounding it.

swim or a bath. There are also a few shelters there for you to change in.

On your way back, you can have a look at the reservoir from which Kodai draws its water-supply.

The Silver Falls lie on the main ghat and are at a made up of the overflow from the lake of Kodaikanal and take a spectacular leap over a sheer precipice of nearly 200 feet.

For pleasant and easy walks, there is Pig Valley Walk and its extension. It cuts through pretty woods and every now and then dazzles you with brilliant views.



Thirteen miles from Kodai lies Berijam Lake. Situated at a high altitude, this lake supplies drinking water to Periyakulam Municipality.

From here you can also reach the Obseravtory which is built on Nandingi-puram Hill, nearly 7,700 feet high. The Observatory which is devoted to the promotion of research work in solar physics is reputed to be the only one of its kind in the country and is worth inspecting. Towards the turn of the century in its vicinity was found what has come to be regarded as the second largest meteorite ever to have been discovered in India. This led to the selection of this commanding site at high altitude for the Observatory.

The Pine Wool Walk, past the Club, the Gold Links, the Pillars, besides providing a very enjoyable four-mile walk also gives you the opportunity of viewing the Fairy Falls and the Observatory on the way. Prospect Point is yet another walk with a destination of beauty to greet you.

But it is the Perumal Peak or the Big Mountain that should be the ultimate ambition of any one visiting Kodaikanal. It is an all-day, all-out excursion and demands great exertion. You can do the first seven miles by car along the main Ghat Road. Start your climb from the vicinity of Maryl and which is the cottage of the American Mission or what is known as the Neutral Saddle.

(*Continued on page 30.*)

To Raise the Tempo of Community Development Schemes

Recommendations of the Inter-State Seminar

A number of recommendations of far-reaching importance aimed at improving the working of Community Development were made by the Fifth Inter-State Seminar held at Kodaikanal in the first week of April, 1954.

In the matter of planning of agricultural production, the Seminar recommended that in areas of low rainfall, the State should come forward to assist the farmers for adopting dry-farming methods, soil conservation and afforestation. Fertilisers should be recommended only after soil analysis and that rule for loans should be revised, so that small cultivators even though not landowners would be able to get assistance on security of crops which they produced.

Marketing problems which faced cottage and village industries were discussed in detail and it was felt by the Seminar that production should be absorbed to the fullest possible extent by the surrounding areas and disposal of surplus should be planned on an all-India basis and where possible for export also.

Recommendation for a more effective programme of social education among village women and giving priorities to medical and public health programmes were also made by the Seminar.

Planning of Agricultural Production

Various measures for more effective planning of agricultural production were discussed by the Seminar. Fixation of targets for sales of fertilizers and seeds from above were regarded as not the most effective planning. Village agricultural plans were felt desirable and planning should take into account not only the present needs but expansion of needs as overall agricultural programme were progressively implemented. Due to importance of agricultural production, the village level worker should concentrate on agricultural programme during active seasons.

In areas of low rainfall, the Seminar recommended State assistance to farmers for adopting dry-farming methods, soil conservation, afforestation, contour bunding, etc. There should be no rigidity about irrigation schemes and State could undertake schemes in addition to minor schemes taken up by the people themselves. In new areas coming under irrigation, other improved methods of increased production should be introduced without loss of time. It was felt that the effectiveness of agricultural extension was frequently handicapped due to lack of simultaneous availability of agricultural supplies and credit. Supplies should be planned so as to ensure availability to the cultivator in time. This involved improving distributing machinery. Fertilizers should be recommended only after soil analysis, and more institutions for this purpose were indicated. The rule for loans should be revised so that small cultivators, even though not landowners, would be able to get assistance on security of crops that they produced. If the recommendations of the Rural Credit Survey Report about linking credit and marketing systems was followed this difficulty would be remedied.

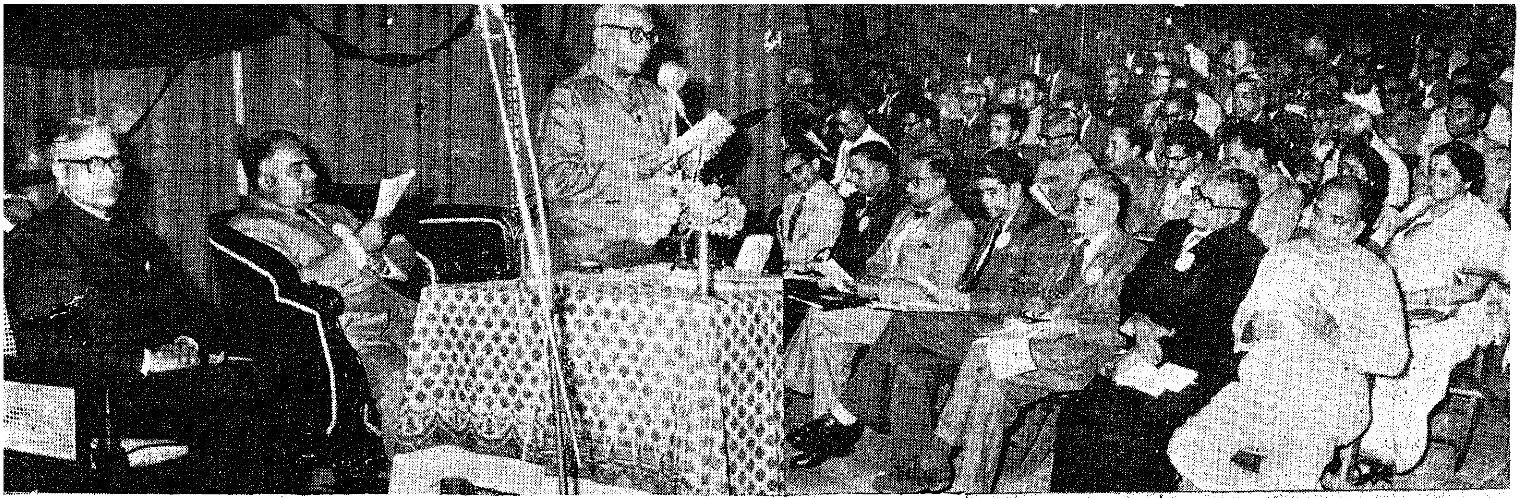
The Seminar felt that group action could be effectively promoted in several fields like purchase of seeds and manures, anti-pest campaigns, provision of storage facilities, marketing, etc.

The gap between farmers with high yields and those with low yields could be narrowed by an extension of credit facilities to the latter and the elimination of fragmented holdings and also by training efficient and enthusiastic farmers to become leaders for encouraging others in the adoption of progressive cultivation methods. The selected farmers could be given short courses in agricultural research stations and demonstration farms and could be taken on tours to other regions. The Seminar recommended increased use of demonstrations and publicity through audio-visual aids.

Cottage and Small-Scale Industries

There is a provision of Rs. 200 crores in the Second Five-Year Plan for the development of cottage and village industries, funds being distributed through the All-India Boards. State Governments have recently liberalised procedures for obtaining loans under these allotments. The Seminar felt that the measures were generally adequate, but felt that schemes for development of village industries were generally simple and it was not necessary to send every year detailedc shemes for sanction of the All-India Boards. Speedy implementation of development programmes would be ensured if the Boards made *ad hoc* allotment for each State and furnished State Governments with model schemes and the pattern of financial assistance for different types of schemes.

Through a major policy change, the emphasis in granting credit for approved items of development has now shifted from credit-worthy individuals to credit-worthy uses. Certain State Governments have simplified the procedure in alignment. This liberalisation was commended by the Seminar which however made the suggestion that financial assistance should normally be routed through industrial co-operatives, and the formation of such co-operatives should be encouraged where they do not exist. The Seminar also recommended delegation of powers to Block Development Officers for grant of small loans.



Sri M. Bhaktavatsalam, Minister for Home, inaugurated the Inter-State Seminar on Community Development at Kodaikanal in the first week of April. A dance recital by Kumari T. D. Kusala Kumari and Kavadi dance by

Sri Sundaram of Madurai were arranged in honour of the delegates. The students of American Missionary School provided choir music. Sri S. K. Dey, Union Minister of Community Development, addressed the closing session of the Seminar.

Medical and Public Health Programmes

Though employment orientation of village and small-scale industries was recognized by the Seminar, it was felt that even for the full realization of this purpose, such industries should be given protection as well as time till they are established on a sound basis. Sales tax and octroi exemption was also recommended in the case of several specfic industries.

In implementation of decision of the Development Commissioners' Simla Conference, 26 cottage and small-scale industries pilot projects have been initiated and they will be multiplied on the basis of experience. For guiding and co-ordinating development pilot projects programme in each State, Action Committees have been set up at State level. For rapid sanction and implementation of these schemes, the Seminar felt that the decision of the Action Committees should be taken as final and binding on the Governments concerned.

Marketing problems were discussed in detail by the Seminar which felt that production should be absorbed to the fullest possible extent by the surrounding areas and disposal of surplus should beplanned on All-India basis and where possible for export also. Need for standardization and increased publicity was emphasised. The establishment of mobile works sales emporia for both village and small-scale industries was recommended as also use of mobile vans for marketing. The Seminar felt there was little progress in organizing marketing societies and recommended their establishment. Credit also should be linked up with marketing when these societies started functioning.

Programmes of medical and public health and priorities for their implementation were discussed by the Fifth Inter-State Seminar on Community Development today. An important main recommendation of the Development Commissioners' Conference, Simla was that one primary health centre and three maternity sub-centres were essential for every Community Development and National Extension Block. It was considered that, for effective functioning of these centres, suitable arrangements for provision of accommodation for the centres and health personnel should form the basic provision of the programme. As there exists no budgetary provision, the Seminar suggested that the Union Health Minister may be requested to allot adequate funds for these centres and staff quarters. As lack of transport facilities resulted in delay in implementing health measures, it was felt that one jeep should be provided for each Development Block for implementing the health programme. There was unanimity in recognising the urgency of population control and family planning though opinion was divided regarding the use of contraceptives. The ultimate target should be the establishment of family planning clinics both in rural and urban areas but a beginning may be made by using urban hospitals and village health centres and their staff for setting up clinics and starting service.

After discussing the minimum programme of environmental sanitation, it was felt that priorities should be given to safe water-supply, construction of sanitary latrines and urinals and soakage pits for disposal of household sullage water. Teams from each region could visit other regions for first hand experience of experiments in implementing this programme. During the discussion on training and personnel it was felt that there was no shortage of doctors though there was urgent necessity for more lady helath visitors midwives, nurses, etc. Full use of orientation training centres was recommended and it was felt that all categories of personnel should receive rural allowance for attracting them to rural areas. In view of the key role of village level workers, need for training them in the fundamentals of public health and environmental sanitation was emphasised but it was felt that their work load was becoming very heavy and steps should be taken to make it more manageable. Establishment of health committees, where Gram Panchayats exist was recommended, though a section was of the opinion that such committees need be set up only at block level immediately. Integration of Medical and Public Health Departments and common orientation of both types of programmes were also felt desirable. Inter-State Seminars were recommended as useful for discussing these problems and for further planning.

Social Education and Village Women

Recommendations for a more effective programme of Social Education among village women were made by the Fifth Inter-State Seminar on Community Development. The minimum programme for Social Education suggested by the Simla Conference of Development Commissioners include literacy, household skills, common medicines, etc., and envisage using occasions like bhajan mandals and religious fairs for social education programmes. The Seminar felt that, if social programme had to be effective among women, it had to be supplemented by economic programmes aswell as by health activities, especially child welfare activities.

Economic programmes should be capable of augmenting family income and should be introduced after careful study of marketing possibilities. Ambar Charka was considered especially useful among such programmes. Funds for these purposes should be earmarked either from the Village Industries Board or Community Development or National Extension Service budget, and there should be close co-ordination between these Boards and Community Development Organization in planning effective economic programmes. With the increase in income, there should be some possibility of introducing the Samall Savings Campaign amongst village women. It was suggested that chit fund and similar systems already in vogue might be improved and procedural formalities for opening Postal Savings account should be simplified.

The Seminar emphasised the need for closer co-operation between grama sevikas, women village teachers, midwives or lady health visitors and Women Social Education Organizers for effective implementation of social education programmes. The number of grama sevikas should be raised and a definite programme of work should be given to them.

Women Welfare and Community Development workers of Kadambattur Block met Chief Minister Sri K. Kamaraj at the Secretariat on 30th March 1957.

(*Continued from page* 14)

obtained. Reports are there that a few number of colonies have had yielded more than 60 pounds of honey each during one year particularly on the Kodaikanal Hills, Nilgiris, Coorg, South Kanara, North Kanara, Mahabaleshwar, etc., on the Western Ghats and that a maximum of 130 pounds of honey was obtained from a single colony in Thandikudi in Kodaikanal Hills during 1955. Given good shelters and proper attention, the bees in selected suitable areas like the plantation area of the Kodaikanal Hills must respond well and yield an average crop of 40 pounds per hive in a year which compares favourably well with the average honey yields of many countries in Europe. Bee-keeping needs continuous reasearch, and sustained efforts to make it a paying industry in as much as it is fascinating and called the " Queen of hobbies ".

Even at the rate of one pound of honey per head per year India needs as much as 360 million pounds and over for distribution to her population for which her present production by way of bee-keeping is estimated to be only about one million pounds of honey. Steps will have to be taken to meet this demand by encouraging bee-keeping in all suitable areas.

In the Madras State.

As a result of propaganda and intensive development of Bee-keeping under the All-India Khadi and Village Industries Board's Scheme in selected areas in Madurai, Ramanathapuram, Nilgiris and Kanyakumari districts there are over 20,000 bee colonies (approximately) owned by about 4,000 persons and producing about 2,00,000 pounds of honey during the year in the Madras State. Plans for the establishment of a Bee Farm for research, training and production, bee nurseries, one for every district, distribution of bee hives in Block Development areas, etc., are included in the Second Five-Year Plan. Training in Bee-keeping is conducted at Marthandam and Kodaikanal and the subject is taught in all the Basic Agricultural and Extension Training Centres for Gram Sevaks. Investigations on the possibilities of establishing Forest Apiaries for large-scale production are also being carried on. As the industry is being developed, the need for the formation of a State Bee-keepers' Association is felt for further organized effort and consolidation and it is hoped that the public will lend their co-operation for the cause.

The Madras Legislative Assembly

Names of the Newly Elected Members

The following members have been elected to the Madras Legislative Assembly in the Second General Elections. The serial number of the constituency, the name of the constituency and the name of the member are given below :—

Serial number.	*Name of constituency.*	*Name of member.*
1	Washermanpet ..	Sri M. Mayandi Nadar.
2	Harbour	Dr. U. Krishna Rao.
3	Basin Bridge ..	Kumari T. N. Anandanayaki.
4	Perambur.. ..	Sri Pakkiriswami Pillai.
5	Perambur.. ..	Srimathi Sathiavanimuthu.*
6	Thousand Lights.	Sri A. V. P. Asaithambi.
7	Egmore	Sri K. Anbazhagan.
8	Triplicane ..	Sri K. S. G. Haja Shareef.
9	Mylapore	Sri C. R. Ramaswamy.
10	Thiagarayanagar.	Sri K. Vinayakam.
11	Madurantakam ..	Sri O. Venkatasubba Reddy.
12	Madurantakam ..	Sri P. S. Ellappan.*
13	Chingleput ..	Sri Muthusamy Nayagar.
14	Chingleput ..	Sri Appavu.*
15	Saidapet	Sri A. S. Duraiswami Reddiar.
16	Ponneri	Sri V. Govindaswami Naidu.
17	Ponneri	Sri T. P. Elumalai.*
18	Gummidipundi ..	Srimathi Kamalambujammal.
19	Tiruvallur ..	Sri N. Ekambara Mudaly.
20	Tiruvallur ..	Sri V. S. Arunachalam.*
21	Sriperumbudur ..	Sri M. Bhaktavatsalam.
22	Uttiramerur ..	Sri V. K. Ramaswamy Mudaliar.
23	Kancheepuram ..	Sri C. N. Annadurai Mudaliar.
24	Arkonam	Sri S. C. Sadayappa Mudaliar.
25	Sholinghur ..	Sri B. Bhakthavathsalu Naidu.
26	Cheyyar	Sri P. Ramachandran.
27	Wandiwash ..	Sri M. Ramachandra Reddiar.
28	Wandiwash ..	Sri D. Dasarathan.*
29	Arcot	Sri S. Khader Sheriff.
30	Ranipet	Sri Chandrasekara Nayagar.
31	Gudiyattam ..	Sri V. K. Kothandaraman.
32	Gudiyattam ..	Sri T. Manavalan.*
33	Vellore ..	Sri M. P. Sarathy.
34	Ambur	Sri Krishnamoorthy.
35	Ambur	Sri Munusami.*
36	Arni	Sri P. Duraiswami Reddiar.
37	Polur	Sri S. M. Annamalai.
38	Thurinjapuram ..	Sri M. A. Manickavelu.
39	Tiruvannamalai ..	Sri P. U. Shanmugam.
40	Tiruvannamalai ..	Sri C. Santhanam.*
41	Chengam	Sri T. Karia Goundar.
42	Vaniyambadi ..	Sri A. A. Rasheed.
43	Tiruppattur ..	Sri R. C. Samanna Gounder.
44	Harur	Sri P. M. Munusamy Gounder.
45	Harur	Sri M. K. Mariappan.*
46	Krishnagiri ..	Sri S. Nagaraja Monigar.
47	Uddanapalli ..	Sri M. Muni Reddi.

Serial number.	*Name of constituency.*	*Name of member.*
48	Hosur	Sri K. Appavoo Pillai.
49	Pennagaram ..	Srimathi Hemalatha Devi.
50	Dharmapuri ..	Sri M. Kandasami Kandar.
51	Yercaud	Sri S. Lakshmana Gounder.
52	Yercaud (Reserved for Scheduled Tribe).	*Vacant.*
53	Salem I	Sri A. Mariappan.
54	Salem II	Sri A. Rathnavel Gounder.
55	Veerapandy ..	Sri M. R. Kandaswamy Mudaliar.
56	Taramangalam ..	Sri N. S. Sundararajan.
57	Mettur	Sri K. S. Ardhanareeswara Gounder.
58	Sankari	Sri K. S. Subramania Gounder.
59	Tiruchengode ..	Sri T. M. Kaliannan.
60	Tiruchengode ..	Sri R. Kandasami.*
61	Namakkal ..	Sri Kolanda Gounder.
62	Namakkal ..	Sri M. P. Periasami.*
63	Sendamangalam.	Sri T. Sivagnanam Pillai.
64	Rasipuram ..	Sri A. Raja Gounder.
65	Attur	Sri M. P. Subramaniam.
66	Attur	Sri Irusappan.*
67	Kallakurichi ..	Sri Nataraja Odayar
68	Kallakurichi ..	Sri M. Anandan.*
69	Tirukoilur ..	Sri S. A. M. Annamalai Odayar.
70	Tirukoilur ..	Sri Kuppusami.*
71	Sathiamangalam.	Sri K. Gopal Kounder.
72	Gingee	Sri M. Jangal Reddiar.
73	Tindivanam ..	Sri P. Veerappa Kounder.
74	Tindivanam ..	Sri M. Jagannathan.*
75	Valavanur ..	Sri A. Govindasamy Nayagar.
76	Villupuram ..	Sri Sarangapani.
77	Ulundurpet ..	Sri Kandasami Padayachi.
78	Cuddalore ..	Sri P. R. Srinivasa Padayachi.
79	Nellikuppam ..	Sri Sivachidambaram Ramaswamy Padayachi.
80	Nellikuppam ..	Sri Thangavelu.*
81	Nallur	Sri Vedamanickam.
82	Vriddhachalam ..	Sri M. Selvaraj.
83	Bhuvanagiri ..	Sri Samikannu Padayachi.
84	Chidambaram ..	Sri G. Vagheesam Pillai.
85	Chidambaram ..	Sri Swami Sahajananda.*
86	Sirkali	Sri C. Muthiah Pillai.
87	Sirkali	Sri K. B. S. Mani.*
88	Mayuram ..	Sri G. Narayanasami Naidu.
89	Mayuram ..	Sri P. Jeyaraj.*
90	Nannilam ..	Sri M. D. Thiagaraja Pillai.
91	Nannilam ..	Sri M. C. Muthukumaraswamy.
92	Nagapattinam ..	Sri N. S. Ramalingam.
93	Thiruthuraipundi.	Sri A. Vedaratnam.
94	Thiruthuraipundi.	Sri V. Vedayyan.*
95	Mannargudi ..	Sri T. S. Swaminatha Odayar.
96	Aduthurai ..	Sri Ramamirda Thondaman.

Serial number.	*Name of constituency.*	*Name of member.*
97	Kumbakonam ..	Sri T. Sampath.
98	Papanasam ..	Sri G. Venkitachala Nattar.
99	Papanasam ..	Sri R. Subramaniam.*
100	Tiruvayar ..	Sri R. Swaminatha Merkondar.
101	Tanjore ..	Sri A. Y. S. Parisutha Nadar.
102	Gandarvakottai ..	Sri Krishnasami Gopalar.
103	Adirampatnam ..	Sri A. R. Marimuthu.
104	Pattukkottai ..	Sri R. Srinivasa Ayyar.
105	Arantangi ..	Sri S. Ramasami Thevar.
106	Tirumayam ..	Sri Ramaiah.
107	Alangudi ..	Sri Arunachala Thevar.
108	Alangudi ..	Sri Chinniah.*
109	Andanallur ..	Sri G. Annamalai Muthuraja.
110	Tiruchirappalli I.	Sri E. P. Mathuram.
111	Tiruchirappalli II.	Sri M. Kalyanasundaram.
112	Srirangam ..	Sri K. Vasudevan.
113	Lalgudi	Sri S. Lazar.
114	T. Palur ..	Sri T. K. Subbaiah.
115	Jayankondan ..	Sri K. R. Viswanathan.
116	Ariyalur ..	Sri Ramalinga Padayachi.
117	Perambalur ..	Sri Krishnasami..
118	Perambalur ..	Sri Periannan.*
119	Musiri	Sri V. A. Muthaiya.
120	Musiri	Sri T. V. Sannasi.*
121	Karur	Sri T. M. Nallaswamy.
122	Aravakurichi ..	Sri S. Sadasivam.
123	Kulittalai ..	Sri M. Karunanidhi.
124	Panjapatti ..	Sri Karunagiri Muthiah.
125	Manapparai ..	Sri N. P. M. Chinnayya Kavundar.
126	Tirukoshtiyur ..	Sri N. V. Chockalingam.
127	Karaikudi ..	Sri M. A. Muthiah Chettiar.
128	Sivaganga ..	Sri D. Subramaniarajkumar.
129	Tiruvadanai ..	Sri Kr. Rm. Kariamanickam Ambalam.
130	Manamadurai ..	Sri R. Chidambara Barathi.
131	Paramakudi ..	Sri K. Ramachandran.
132	Ramanathapuram	Sri Shanmugha Rajeswara Sethupathi.
133	Mudukulathur ..	*Vacant.*
134	Mudukulathur ..	Sri A. Perumal.*
135	Aruppukkottai ..	Sri M. D. Ramasamy.
136	Sattur	Sri K. Kamaraj Nadar.
137	Sivakasi	Sri S. Ramasami Naidu.
138	Srivilliputhur ..	Sri R. Krishnasami Naidu.
139	Srivilliputhur ..	Sri A. Chinnasami.*
140	Koilpatti	Sri V. Suppaya Naicker.
141	Kadambur ..	Sri K. Ramasubbu.
142	Kadambur ..	Sri S. Sangili.*
143	Tuticorin	Sri P. P. M. T. Ponnuswami.
144	Srivaikuntam ..	Sri A. P. C. Veerabahu.
145	Tiruchendur ..	Sri M. S. Selvarajan.
146	Sattangulam ..	Sri S. B. Adityan.
147	Radhapuram ..	Sri A. V. Thomas.
148	Nanguneri ..	Sri M. G. Sankar.
149	Tirunelveli ..	Srimathi Rajathi Kunchithapatham.
150	Tirunelveli ..	Sri Somasundaram.*
151	Ambasamudram	Sri Gomathi Sankara Deekshidar.
152	Kadayam ..	Sri D. S. Authimoolam.
153	Tenkasi	Sri K. Sattanatha Karayalar.
154	Alangulam ..	Sri Veluchamy Thevar.
155	Sankarankoil ..	Sri A. R. Subbia h Mudaliar.
156	Sankarankoil ..	Sri Urkavalan.*
157	Kanyakumari ..	Sri Ramaswami Pillai.
158	Nagercoil ..	Sri A. Chidambaranatha Nadar.
159	Colachel	Srimathi Lourdammal.
160	Padmanabhapuram.	Sri Thompson Tharmaraj Daniel.
161	Killiyoor	Sri A. Nesamony.
162	Vilvankode ..	Sri M. William.
163	Uthamapalayam.	Sri K. Pandiaraj.
164	Bodinayakanoor.	Sri A. S. Subbaraj.
165	Kodaikanal ..	Sri M. Alagirisami.
166	Theni	Sri N. R. Thiagarajan.
167	Theni	Sri M. M. Velappan.*
168	Usilampatti ..	Sri K. Mookiah Thevar.
169	Thirumangalam.	Sri A. V. P. Periavalaguruva Reddi.
170	Madurai East ..	Srimathi P. K. R. Lakshmikantham.
171	Madurai Central.	Sri V. Sankaran.
172	Thirupparankundram.	Sri S. Chinnakaruppa Thevar.
173	Nilakkottai ..	Sri W. P. A. R. Chandrasekaran.
174	Nilakottai ..	Srimathi A. S. Ponnammal.*
175	Melur	Sri M. Peria Karuppan Ambalam.
176	Melur	Sri P. Kakkan.*
177	Vadamadurai ..	Sri T. Thirumalaimuthu Veerasakkaya Thiruvenkadasamy Naicker.
178	Vedasandur ..	Srimathi T. S. Soundaram Ramachandran.
179	Dindigul	Sri M. J. Jamal Mohideen.
180	Authoor	Sri M. A. B. Arumugasamy Chettiar.
181	Ottanchatram ..	Sri Karuthappa Gounder.
182	Palani	Sri Lakshmipathiraj.
183	Udamalpet ..	Sri S. T. Subbayya Gounder.
184	Pollachi ..	Sri N. Mahalingam.
185	Pollachi ..	Sri K. Ponnian.*
186	Koilpalayam ..	Sri C. Subramaniam.
187	Dharapuram ..	Sri A. Senapathi Gounder.
188	Kangayam ..	Sri K. G. Palanisamy Gounder.
189	Chennimalai ..	Sri K. R. Nallasivam.
190	Erode ..	Sri V. S. Manickasundaram.
191	Perundurai ..	Sri N. K. Palanisamy.
192	Bhavani ..	Sri G. G. Gurumurthi.
193	Bhavani ..	Sri P. G. Manickam.*
194	Gobichettipalayam.	Sri P. G. Karuthiruman.
195	Nambiyur ..	Sri K. L. Ramaswami.
196	Tiruppur	Sri K. N. Palanisami.
197	Palladam ..	Sri P. S. Chinnadurai.
198	Coimbatore I ..	Srimathi Savitri Shanmugam.
199	Coimbatore II ..	Sri Palaniswamy.
200	Coimbatore II ..	Sri Marudachalam.*
201	Sulur	Srimathi Kulanthaiammal.
202	Avanashi	Sri K. Marappa Gounder.
203	Mettupalayam ..	Srimathi D. Raghubadhi Devi.
204	Coonoor	Sri J. Matha Gowder.
205	Ootcamund ..	Sri B. K. Linga Gowder.

NOTE.—* Elected to the seat reserved for Scheduled Castes.

Members Elected to Lok Sabha

The members who have been elected to the Lok Sabha from Madras State and the constituencies are given below—

	Constituency.	*Name.*
1	Chidambaram ..	Sri R. Kanagasabai Pillai.
2	Chidambaram (R)	Sri L. Elayaperumal (SC).
3	Chingleput ..	Dr. A. Krishnaswamy.
4	Chingleput (R) ..	Sri N. Sivaraj (SC).
5	Coimbatore ..	Srimathi Parvathi Krishnan.
6	Cuddalore ..	Sri T. D. Muthukumarasamy Naidu.
7	Dindigul	Sri Gulam Mohideen.
8	Dindigul (R) ..	Sri Balakrishnan (SC).
9	Gobichettipalayam.	Sri Ramasami Gounder.
10	Karur	Sri K. Periasami Gounder.
11	Krishnagiri ..	Sri C. R. Narasimhan.
12	Kumbakonam ..	Sri C. R. Pattabhiraman.
13	Madras North ..	S. C. C. Anthony Pillai.
14	Madras South ..	Sri T. T. Krishnamachari.
15	Madurai	Sri K. T. K. Thangamani.
16	Nagapattinam ..	Sri K. R. Sambandam.
17	Nagapattinam (R).	Sri M. Ayyakannu (SC).
18	Nagercoil ..	Sri Thanulingam Nadar.
19	Namakkal ..	Sri E. V. K. Sampath.
20	Namakkal (R) ..	Sri S. R. Arumugam (SC).
21	Nilgiris	Sri C. Nanjappan.
22	Perambalur ..	Sri M. Palaniandi.
23	Periyakulam. ..	Sri Narayanasamy.
24	Pollachi ..	Sri P. R. Ramakrishnan.
25	Pudukkottai ..	Sri R. Ramanathan Chettiar.
26	Ramanathapuram.	Sri P. Subbaiah Ambalam.
27	Salem	Sri S. V. Ramaswami.
28	Srivilliputhur ..	Sri U. Muthuramalinga Thevar.
29	Srivilliputhur (R).	Sri R. S. Arumugam (SC).
30	Tanjore	Sri R. Venkataraman.
31	Tenkasi	Sri M. Sankarapandian.
32	Thiruvannamalai	Sri Dharmalingam.
33	Tindivanam ..	Sri Shanmugham.
34	Tiruchendur ..	Sri T. Ganapathy.
35	Tiruchengode ..	Dr. P. Subbarayan.
36	Tiruchirappalli ..	Sri M. K. M. Abdul Salam.
37	Tirunelveli ..	Sri Thanu Pillai.
38	Tiruppattur ..	Sri A. Duraisamy Goundar.
39	Tiruvallur ..	Sri R. Govindarajulu Naidu.
40	Vellore	Sri N. R. Muniswami.
41	Vellore (R) ..	Sri M. Muthukrishnan (SC).

(*Continued from page* 7)

below the site of the new canal head was diverted for a considerable length and now discharges into the Cauvery on the upstream side of the new canal. The head sluice of the Grand canal consists of 6 vents of $30' \times 5\frac{1}{2}'$. The vents are fitted with radial steel shutters, hand operated through worm gearing.

This historic Grand Anicut is visited by a large number of tourists and Engineers alike. To make the place more impressive it is being electrified. Gardens and parks in the area are being laid out with fountains and statues at suitable places. A small shrine dedicated to Sri Hanuman, the guarding deity, is located in the middle of the anicut. This shrine attracts considerable number of pilgrims.

The Cauvery river is called the 'Ponni' or the golden river. Whether it is due to the gold held in the river water as is popularly believed in some quarters or whether it is due to the large production of wealth for which the river is responsible, it is immaterial for us to debate. Suffice it to say, that thanks to the premier effort of Raja Karikala Chola, who as early as the Second Century had the vision and energy to tame the river and harness its waters to the benefit of Tanjore district, it was possible for this district to be hailed as the 'Granary of South India'. Although done in a rather crude manner, in those early days, the effort of Karikala has borne fruit beyond, perhaps, his most sanguine expectation and the work has formed the basis for further improvements from 19th century onwards and in its present condition, it is amply fulfilling its onerous task of distributing supplies to the old and new deltas in Tanjore district to an extent of about 13 lakhs of acres besides sending down supplies to a further extent of 1·08 lakhs of acres under the Lower Coleroon Anicut in South Arcot District. As an humble tribute to the memory of the pioneer Royal Engineer of the 2nd century A.D. (Raja Karikala Chola), a statue of his has now been erected to adorn the park.

(*Continued from page* 23)

The first thousand feet or so will test your mettle. Altogether, the upward way comprises about 5 miles which you can make in easy stages. The earlier in the morning you reach the top the better. The splendid views which you will legitimately expect as the reward of your panting labours are at their best up to ten or so. Later, haze, mist, fog or cloud, jealously hide the scenic treasures from your sight. Don't worry unduly about the distance or the climb. The air is so fresh and bracing that you will feel restored to double your normal energy once on top. The panorama embraces the entire country—Madurai, Virudhunagar, Tiruchirappalli, Palani, even the Nilgiris and the Kodai Plateau.

The total revenue from fisheries for the year 1955-56 amounted to Rs. 23,23,528 against the expenditure of Rs. 25,80,063 when compared to the revenue of Rs. 22,36,752 and expenditure of Rs. 26,05,614 in 1954–55. There was a slight increase in revenue and a reduction in expenditure.

Balanced Diet for The Family

Tips to the Indian Housewife

By Dr. (Smt.) RAJAMMAL P. DEVADAS, Chief Home Economist, Directorate of Extension and Training, Ministry of Agriculture.

Since the family budget for food-stuffs is a limiting factor for many people in their effort to procure optimum nutrition, it is necessary, particularly in India, to find cheaper and inexpensive substitutes for comparatively costly foods like milk, egg, fish and meat.

Groundnut milk, which is easily prepared by grinding groundnut and mixing it with proper proportions of lime, cod-liver oil and sugar, is a good substitute for milk. Sprouted grams supply large quantities of vitamin C. Groundnut butter is as good as meat or fish.

One need not always spend extra money to get better nutrition. Much benefit can be derived by modifying existing food habits and combinations. A small quantity of milk mixed with cereal or *dhal* gives more nutrition than cereal or milk alone.

In Mysore and some parts of Andhra and Tamilnad, where *ragi* is used in combination with buttermilk and green leafy vegetables, people enjoy good health. Cod-liver oil protects the body against many diseases.

Basic Foods.

The housewife should plan to feed the family with essential or basic foods All the foods required for maintaining health and growth of the body are divided into three groups according to the functions of food, namely, those which (i) furnish energy for work, (ii) provide materials for growth and repair, and (iii) supply substances for regulating body functions.

(*Continued on page* 32)

COTTON YARNS

OF ALL DESCRIPTIONS

FOR HANDLOOM, POWERLOOM & HOSIERY FACTORIES

MADURA MILLS CO., LTD.

Phone : 250 (5 lines) MADURAI (South India) Telegrams : "HARVEY"

MILLS AT

MADURAI, TUTICORIN AND AMBASAMUDRAM

500,000 Spindles Counts up to 80s

We Supply :

WARP YARNS, COMBED YARNS, HOSIERY YARNS, CONE, CHEESE AND HANK YARNS

SINGLE AND FOLDED

SPECIALITIES :

Yarns for the manufacture of

ROPES—HEALDS—CANVAS—TAPE

BELTING DUCK—TYRE CORD—SEWING THREAD

MULTI-PLY AND CORD YARNS

Managers :

A. & F. HARVEY, LTD.

PANDYAN BUILDING

Phone : 420 (4 lines) MADURAI (South India) Telegrams : "HARVEY"

Our Women Legislators

Twelve women have been elected to the Madras Legislative Assembly in the Second General Elections. Of these twelve, eleven belong to the National Congress and the other to the Dravida Munnetra Kazhagam. Twenty-four women contested the elections on behalf of various political parties and as Independents. Of the thirteen set up by the Congress Party eleven were successful and the only women candidate that contested a Reserve seat on behalf of D.M.K. was elected.

The women legislators from Madras are:—

1	Srimathi Anandanayaki ..	Congress.	Basin Bridge.
2	Srimathi Savitri Shanmugam.	Do.	Coimbatore I.
3	Srimathi Lourdammal ..	Do.	Colachel.
4	Srimathi Kamalambujammal.	Do.	Gummidipundi.
5	Srimathi P. K. R. Lakshmikantham.	Do.	Madurai East.
6	Srimathi D. Raghubathi Devi.	Do.	Mettupalayam.
7	Srimathi A. S. Ponnammal ..	Do.	Nilakkottai.
8	Srimathi Hemalatha Devi ..	Do.	Peennagaram.
9	Srimathi Sathiavanimuthu (SC)	D.M.K.	Perambur (R).
10	Srimathi Kulanthai Ammal ..	Congress.	Sulur.
11	Srimathi Rajathi Kunjithapatham.	Do.	Tirunelveli.
12	Srimathi T. S. Soundaram Ramachandran.	Do.	Vedasandur.

The Madras State will be represented in the Lok Sabha by a solitary woman Legislator. She is Srimathi Parvathi elected on Communist Party of India ticket from Coimbatore Urban Constituency. Three women contested elections for the Lok Sabha.

Twenty-seven women have been elected to the Lok Sabha, and 195 to the various State Assemblies in the Second General Elections as compared to 21 and 80 respectively in the last elections.

Twenty-three women elected to the Lok Sabha belong to the Congress Party, two to the Communist Party and two to the Cho Ntaagpur Santhal Parganas Janata Party.

Of those elected to the State Assemblies, 179 belong to the Congress, four to the Communist Party, one to the People's Democratic Front, two to the Chota Nagpur Santhal Parganas Janata Party, three to the Ganatantra Parishad, one to the D.M.K. and the remaining five are Independents.

The Bihar Assembly will have 32 women, the largest for any State followed by Madhya Pradesh with 27, Uttar Pradesh with 26, Bombay with 25 and Mysore with 18.

Books and Publications

The journal of the Tanjore Sarasvati Mahal Library. Edited by S. Gopalan, Honorary Secretary. Annual Subscription Rs. 4 only.

This is a scholarly production. It contains original articles and source materials. The journal will be found interesting especially by those with an intellectual bent of mind.

(*Continued from page* 31)

The energy producing foods are mainly cereals—the most economic food in the world—and are called 'the staff of life'. These include rice, *ragi* wheat, *kambu*, *cholam*, bread, sago, tapioca, and starchy vegetables like potato, sugar and fats.

Protein foods, which mainly help in building up various parts of the human body, include milk, pulses, nuts, meat, fish and eggs. Since milk, egg and fish are comparatively expensive, the poorer people have to depend upon pulses and groundnuts for the supply of proteins.

Fortunately, groundnut, which is available and widely used in most parts of our country, is a rich source of protein, almost as good as meat.

Foods to regulate functions of the body and protect it against diseases—the third category—are needed in small amounts, but are essential to health and the normal working of the body.

Iron rich foods, such as *ragi*, green leafy vegetables and liver, calcium rich foods such as green leafy vegetables, *ragi*, milk and drumstick, and vitamin rich foods such as green leafy vegetables green vegetables, milk, eggs, liver, tomatoes, and citrus fruits, are some of the main protective foods.

The housewife should include at least one food from the three groups in order to make the daily diet balanced.

She should apply suitable methods of cooking in order to get the maximum nutritive value, palatability and attractiveness. Vegetables should be cooked in the smallest amount of water for the shortest time. No cooking water should be discarded. Some vegetables like carrots, radish, lettuce, cucumber, cabbage, tomatoes, mint and *kothamalli* leaves and green chillies should be served raw fairy.

The food cooked should be served in a pleasant and cordial atmosphere. Even the most adequate food can be spoiled by improper methods of serving.

PRINTED BY THE SUPERINTENDENT, GOVERNMENT PRESS, MADRAS, AND EDITED AND PUBLISHED BY THE DIRECTOR OF INFORMATION AND PUBLICITY, GOVERNMENT OF MADRAS

MADRAS PUBLIC LIBRARY

import of foodgrains. Over 5 years the value of additional foodgrains production with the application of fertilizers would come to about Rs. 268·8 crores whereas foreign exchange outlay for the entire import programme (including demand for commercial crops) would work out to about Rs. 101·3 crores. If the present foreign exchange position does not permit imports of fertilizers to the extent necessary even to meet the planned targets, not to speak of actual requirements which are now running ahead of the planned targets, than the setback to the increased food production would be serious. The Committee considers fertilizers to be of fundamental importance because of the important role they play in extension work. Fertilizers break resistance of the cultivators to new improved farming techniques.

The Committee, therefore, recommends high priority for import of fertilizers and also the setting up of more factories for producing chemical fertilizers in India. One way to meet the foreign exchange requirement that would arise in this connection would be either to invite foreign firms to participate with Government or with private enterprise in setting up these factories or even to give them scope to set up factories in their own. As regards manure, the Committee emphasises the urgent need to develop local manurial resources, e.g., night soil, farm yard manure, compost and green manure.

Land reforms

The Committee has noted that uncertainty about land reforms is affecting productive effort and recommends that the State Governments should proceed expeditiously with enacting the necessary legislation for land reforms and follow it up with effective implementation.

Marketed surplus

The food needs of the urban areas are expected to increase considerably in the course of next few years and as the tempo of development and urbanisation increases, the flow of surplus from the rural areas is likely to become uncertain. It is imperative that necessary measures be taken in the first place, to augment the total marketed surplus and, in the second place, to encourage its flow to the assembling markets for augmenting marketed surplus. Facilities like grain golas need to be provided in the rural areas so that while the cultivator is encouraged to part with his grain after the harvest, he would not be left high and dry in the subsequent lean part of the year. Another way of augmenting marketed surplus in the rural areas would be to link the supply of credit by the co-operative societies with the marketing of produce. The Committee recommends that in the Community Project Areas special efforts may be made to make the farmer market conscious, encourage him to sell more of his produce in exchange of industrial goods and thereby ensure that increased production in these areas is reflected in the marketed surplus. For encouraging the flow of surplus from the rural areas to the assembling markets, it is necessary that the markets should be regulated. Arrangements should be also made for the collection of all relevant data including information on market sentiments and expectations which affect the course of prices.

Eastern U.P.

Detailed and intensive studies of all chronic scarcity areas should be taken up at an early date. The root causes of the food problem in the eastern districts of U.P. are very high density of population, low cultivated area per head of population and poor yield per acre. The per capita cultivated area is likely to fall further in the years to come. There being little scope for extension of cultivation, production can be increased only by increasing the yield per acre and the area under double cropping. Water level in these districts being high, masonry wells provide a cheap and ready means of irrigation and stress should be laid on the construction and repair of these wells. A drive for the promotion of co-operative servicing and better farming societies is called for in these areas. The pace of progress of flood control schemes is poor and needs to be stepped up. While normally the problem is only of supplies to meet the deficit in this area, in a year of poor crop there is the additional problem of making supplies available at cheap rates. Arrangements for Government supplies to these districts on a continuing basis will be necessary. Exports of foodgrains on private account from these districts should be banned. It is necessary to correct the unbalanced character of the economy by increasing and diversifying employment opportunities through promotion of village and small-scale industries besides provision of better irrigation facilities for agriculture and protecting the economy against flood hazards.

Population control

The Committee further pionts out that for an effective solution of the food problem, not only determined and all-out efforts to step up production have to be made but the high rate of increase of population has to be checked. It has, therefore, urged that a nation-wide compaign for family planning enlisting the efforts and energies of social workers, particularly women, medical men, scientists, sociologists, economists, administrators and political leaders should be launched.

Food problem should transcend party considerations

The Committee concludes its report by emphasising that the gravity of the food problem demands national efforts transcending regional and party considerations. Given a sympathetic policy and helpful administration the Committee has no doubt that our cultivators are capable of greatly accelarating production. What is needed is a sense of urgency and mobilisation of popular energies on a national scale. Success of food policy, in the conditions prevailing, demands understanding and co-operation from the people. In the great experiment of economic development through political democracy that our country is engaged in, the crucial position is occupied by food policy.

Paddy yield of 7,000 lb. shown by Tiruchi Competitor

A spectacular yield of 7,000 lb. paddy per acre was shown by Sri P. N. Nataraja Pillai of Pachur, Lalgudi taluk, Tiruchirappalli district in the crop yield competition organized in that district for 1956-57. He has secured both the taluk and firka prizes, while the district prize is yet to be announced. Other firka prizes have been awarded to Sri A. K. Gopinath of Sriramasamudram (Thottiam Firka) on a yield of 6,260 lb. paddy per acre, Sri N. Duraisamy Udayar of Erayur (Valikondapuram Firka) on 5,920 lb., and Sri P. Krishnaswamy Naidu of Maruvathur (Kannanore Firka) on a yield of 5,745 lb. per acre.

distribution. He explained the reason as follows: "We are not against setting up an organization as such. You can form local organizations. But setting up an organisation on an all-India scale involves enforcement of discipline and then, as we know from experience, everything becomes bogus. We want to keep clear of this great pitfall. A big organization, while it becomes useless so far as work is concerned, engenders a feeling of vanity in its followers. It then serves as a label which people use for selfish ends. Everybody seeks to build up his party and in effect isolates himself from the people in general. Instead of shaping the society after what they believe to be true and desirable, they just cut themselves away from it. Had we set up an independent organization of our own, we would not have received the co-operation that we are receiving". This principle of dissociating the movement from any political programme or centralising it has amply justified itself. Except under totalitarianism social change is not centrally directed. In a recent message (July 1957), Bhave said that no legislation can ever achieve what Bhoodan or Gramdan had done. The fact that 2,500 villages had been obtained in Bhoodan had made even the sceptical to sit up and take note of this new technique, the first instance in history, when private ownership is being liquidated with consent. All eyes are now turned on this non-violent experiment for socialisation of land without State intervention or legislation or class-conflict.

Psychological Approach

Although essentially a movement based on the gospel of love, it is not wholly without a political philosophy or economic justification. Writing on the political theory of Bhoodan, in the August 1957 issue of the "Bhavan's Journal", Jai Prakash Narain wrote "The Bhoodan movement does not aim at capturing the State in order to use it for its ends. As a corollary, it does not wish to create or become a political party in order to capture the State. It aims rather at persuading the people, independently of what the State may or may not want, to carry out a revolution in their own lives, and through that a revolution in society." The economic justification rests not on bookish theories but on the essential fact that no economic structure can be sustained except by the invisible factor of human relations. The psychological approach is as much necessary in economics as in every other thing. The economics of social change is yet to be written.

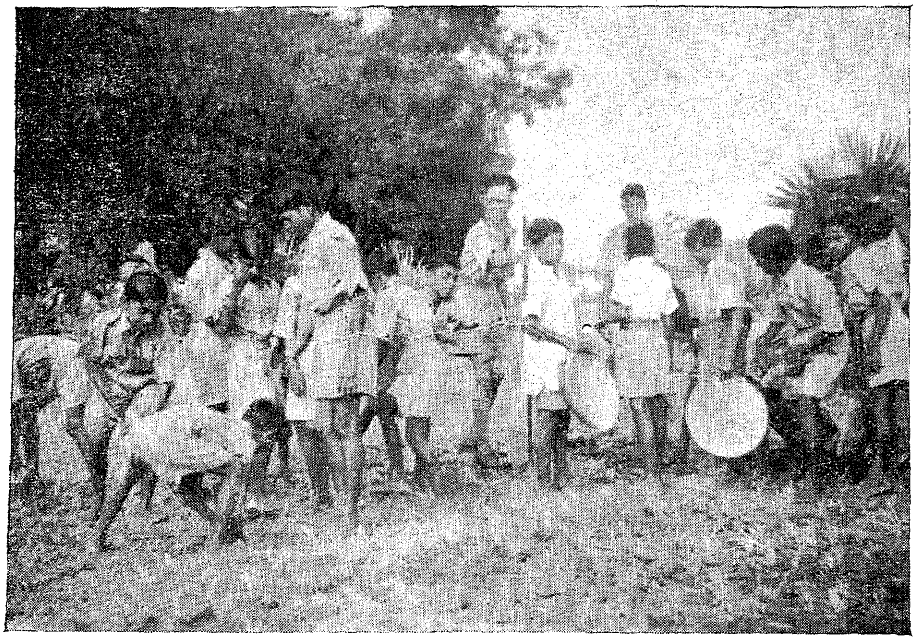
The book under notice contains Bhave's writings on Bhoodan up to 1953 and is a valuable guide for a correct appreciation of the movement. His later utterances are published in pamphlets issued by the Sarvodaya Prachuralaya and in journals like "Bhoodan", Poona and "Sarvodaya", Tanjore. Many articles have also appeared in foreign journals.

A.C.C. Boys Saved a village

How the A.C.C. boys bravely fought a fire in the middle of a night and saved a village from complete destruction, while camping at Manur village in Tirunelveli district, has been reported.

The boys from various schools of Tirunelveli district, numbering about 500 were fast asleep inside Manur Temple on September 9th after a day's toil in laying a village road. They were aroused suddenly by screams and to their horror found a hut in the middle of the village in flames. The wind was blowing fast and threatened to destroy the village completely.

The boys under the camp Commandant Gopi and his army staff rushed to the scene, fought a battle for almost an hour to bring the fire under control. Two huts were lost to the fire and five boys were injured slightly during the operation. The village people paid their grateful thanks to the boys for their timely help.



Block Development staff of Maduranthagam contributed Shramdhan with the villagers to lay an earthen road at Mudukarai village during last month.

(*Continued from page* 31)

Ootacamund. The chief feature of this variety is that it produces small bulbils (miniature onion bulbs) on flower stalks, which form a perpectual source of supply of mildly pungent onions to the housewife. A plant may produce bulbils within a year of planting and continue to produce them for over three months. By transplanting the suckers that develop at different times of the year, a succession of supplies can be ensured and unlike the ordinary onion, it requires less space and is admirably suited for home gardens.

not carry on the war single-handed, and therefore ceased fighting. Netaji again wished to stay with his army and face the enemy in Singapore. Again he was persuaded at the very last moment to quit Singapore and fly away to an unknown destination—far from the reach of Anglo-Americans.

His colleagues were determined that he should not fall a prisoner into Anglo-American hands. He did not share their view. He insisted that his place was with his men. He was prepared for capture, arrest, trial, sentence of death and execution. His colleagues failed to dissuade him till the early hours of the 16th of August after days and nights of animated discussion. Only with the break of dawn on August 16, Netaji yielded, and agreed to move out of Singapore. He flew to Bangkok and arrived there that afternoon. After all night conferences with his civilian and military officers there, he pushed on to Saigon the next morning (August 17th). The same afternoon, he boarded another plane on his fateful and last known flight to an unknown destination. The Japanese authorities announced a week later that Netaji died in a plane crash on Formosa Island on August 18, 1945.

Thus the story of Subhas Chandra Bose in East Asia ended after 25 months of hectic and heroic activities in the cause of Indian Independence. But the I.N.A. he created and left behind in East Asia was made prisoners of war, taken all the way to the Red Fort in Delhi, and symbolically courtmartialled for waging war against the British King.

Bhulabhai Desai, defending the I.N.A., proclaimed to the world the right of a subject nation to wage war against its alien King.

The whole of India was stirred to its depths when the Saga of the I.N.A. was unfolded day after day before the courtmartial at the Red Fort. Sheer weight of public opinion in India forced the British to release those who had already been tried and sentenced, and to drop all further trials.

Exactly what role the I.N.A. played in inducing the British to quit India in August 1947 may safely be left to the verdict of future historians.

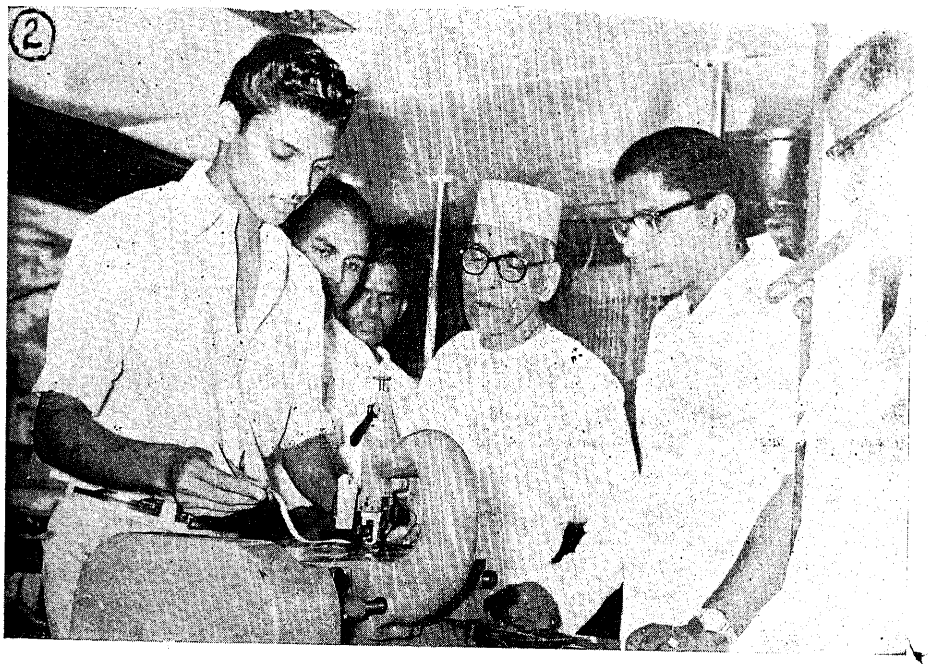
Suffice it to say for the purpose of this article that the Indian National Army was one of the historical sequences of the Indian uprising of 1857, whose centenary, we are celebrating now.

(Continued from page 28)

population are reflected in the sample as closely as the size of the sample will permit so that reliable estimates of the population characters can be formed from the sample. With the above basic principles, this theory of sampling can be used for the estimation of livestock numbers, to find out the cost of production of livestock products such as milk and also to estimate the total production of milk. Such schemes are being put into operation in this State under the Second Five-Year Plan. This procedure enhances the accuracy of the collection of numbers, by the application of random sampling. Since no attempt has so far been made to collect statistics of Livestock products on a country wide scale in a scientific manner, this method of adopting random sampling procedure appears to give a reliable estimate. These reliable estimates are very necessary for efficient planning and development of livestock. When the schemes under Second Five Year-Plan are put into operation, it is only these estimates that gives us a standrad yardstick, with which we can plan our future schemes with a certain amount of precision.

abolish the distinction betweeen religion and irreligion. That being so some people might object that there would be no room left for equimindedness, if everyone took his own decision as to what was religion and what was irreligion. If we follow the law of love we shall not bear any hatred towards the irreligious brother. On the contrary we shall love him and therefore either we shall bring him to see the error of his ways or we will point out our error or each will tolerate the other's difference of opinion.

Gandhiji passionately subscribed to the Swadeshi cult. But he has pointed out (in the last letter in the booklet under review) that even Swadeshi like any other good thing can be ridden to death if it is made fetish and that this is a danger which must be guarded against. Here are his words of caution which should be ever remembered:—" To reject foreign manufactures merely because they are foreign and to go on wasting national time and money in the promotion in one's country of manufactures for which



Sri M. A. Manickavelu, Minister for Revenue, Inspected a Mobile Workshop during his recent visit to Vellore. Sri Narayanswamy, Assistant Director of Industries, Vellore explained to the Minister the working of power-operated machines.

PRINTED BY THE SUPERINTENDENT, GOVERNMENT PRESS, MADRAS, AND EDITED AND PUBLISHED BY THE DIRECTOR OF INFORMATION AND PUBLICITY, GOVERNMENT OF MADRAS.

CONNEMARA PUBLIC LIBRARY